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ABSTRACT

The Communication Technology and Policy section of the Proceedings contains the following 15 papers: "The Virtual Sphere: The Internet as a Public Sphere" (Zizi Papacharissi); "Toward a Typology of Internet Users and Online Privacy Concerns" (Kim Bartel Sheehan); "Blind Spots of the Communications Decency Act Debate: A Critique of Jeffersonian Free Speech" (Misook Baek); "Telecommunications for Rural Community Development: The Effects of Community Projects on Attitudes and Adoption Among Community Members" (C. Ann Hollifield, Joseph Donnermeyer, Gwen Wolford, and Robert Agunga); "Broadening the Boundaries of Interactivity: A Concept Explication" (Spiro Kiousis); "Privacy, Security and Intellectual Property: Proprietary Interests Over the Internet" (Laurie Thomas Lee); "Examining Information Processing on the World Wide Web Using Think Aloud Protocols" (William P. Eveland, Jr. and Sharon Dunwoody); "An Online Study of the Uses and Gratifications of Internet Pornography" (Ryan J. Burns); "Free Air Time for Candidates: An Attempt to Improve Political Discourse" (Douglas Bailey); "Media Convergence on the Internet" (Mark Tremayne); "Credibility and Journalism on the Internet: How Online Newspapers Handle Errors and Corrections" (Berlinda Nadarajan and Penghwa Ang); "Tracing the Evolution of Interactive Media and Funding Models through the Trade Press" (Sally J. McMillan); "'Son of CDA (Communications Decency Act)': Will the Child Online Protection Act of 1998 Meet Constitutional Muster?" (Johanna M. Roodenburg); "Killing Physicians with Fighting Words: A Free-Speech Challenge to Internet Community Building" (Terry L. Wimmer); and "Japanese Television Broadcast Policy-Making Analysis: From Analog to Digital 1987-1997" (Tsutomu Kanayama). (RS)

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The Virtual Sphere:

The Internet as a public sphere.

Student Paper

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Paper accepted by the Communication Technology and Policy Division for presentation at the August 1999 Annual Convention of the Association for Education in Journalism and Mass Communication

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Abstract

The Internet and its surrounding technologies are frequently touted for their potential to revive the public sphere. Several aspects of these new technologies simultaneously curtail and augment their ability to transform the public sphere. First, the information storage and retrieval capabilities of net-based technologies do infuse political discussion with facts otherwise unavailable, however, information access is not universal and equal to all. Second, net-based technologies do enable discussion between people on far sides of the globe, but also frequently fragmentize political discourse. Third, given the patterns of global capitalism, it is more likely that net-based technologies will adapt themselves to the current political culture, rather than create a new one. I assessed these possibilities and concluded that there may still be hope for the virtual sphere.

Introduction

The utopian rhetoric that accompanies the onslaught of revolutionary new media technologies connotes a further democratization of post-industrial society, where the Internet and its surrounding technologies will augment avenues for personal expression and promote citizen activity (e.g., Bell, 1981; Kling, 1996; Negroponte, 1998; Rheingold, 1993). New technologies provide information and tools that may extend the role of the public in the social and political arena. The explosion of on-line political groups and activism certainly indicates political uses of the net (Bowen, 1996; Browning, 1996). In this case, how do these political uses of the Internet affect the public sphere? Does cyberspace present a separate alternative to, extend, minimize, or ignore the public sphere? It is important to determine whether the Internet and its surrounding technologies will truly revolutionize the political sphere or whether they will be adapted to the current status quo, especially at a time when the public is demonstrating dormant political activity and developing growing cynicism towards politics. Will these technologies extend our political capacities or limit democracy (or alternatively, do a little bit of both)? Such a discussion should primarily be informed with an examination of the notion of the public sphere and its ideological baggage. This is a theoretical essay, and its value lies in evaluating what we know about on-line political communication, and what questions we should focus on next.

The Public Sphere

When thinking of the public, one thinks of open exchanges of political thoughts and ideas, such as those that took place in ancient Greek agoras or colonial era townhalls. The idea of the public is closely tied to democratic ideals that call for citizen participation in public affairs. Tocqueville considered the American people's dedication to public affairs to be at the heart of the healthy and lively American democracy, and added that participation in public affairs contributes significantly to an individual's sense of existence and self-respect. Dewey (1927) insisted that inquiry and communication are the basis for a democratic society and highlighted the merits of group deliberation over the decisions of a single authority. He argued for a communitarian democracy, where individuals come together to create and preserve a good life in common. The term public connotes ideas of citizenship, of commonality, and of things not private, but accessible and observable by all. More recently, Jones (1997) argued that cyberspace is promoted as the "new public space" because it is made by people and "conjoining traditional mythic narratives of progress with strong modern impulses toward self-fulfillment and personal development" (p, 22). These separate visions share the hope for social progress that can be achieved through the proper function of a public sphere.

Several critics romanticize the public, and think back on it as something that existed long ago, but eroded with the advent of modern, industrial society. Sensing the demise of the great public, Habermas (1962/1989) traced the development of a public sphere in the seventeenth and eighteenth century and its decline in the twentieth century. He saw the public sphere as a domain of our social life in which public opinion could be formed out of rational public debate (Habermas 1973/1991). Ultimately, informed and logical discussion, Habermas (1962/1989) argued, could lead to public agreement and decision making, thus representing the best of the democratic tradition.

Still, these conceptualizations of the public were somewhat idealized. It is ironic that this pinnacle of democracy was rather un-democratic in its structure throughout the centuries, not including women or people from lower social classes, a point acknowledged as such by Habermas himself. Moreover, critics of Habermas' rational public sphere such as Lyotard (1984), brought up that anarchy, individuality and disagreement, rather than rational accord, lead to true democratic emancipation. Fraser (1992) expanded Lyotard's critique and added that Habermas' conceptualization of the public sphere functioned merely as a realm for privileged men to practice their skills of governance, for it excluded women and non-propertied classes. She contended that, in contemporary America, co-existing public spheres of counterpublics form in response to their exclusion from the dominant sphere of debate. Therefore, multiple public spheres, not equally powerful, articulate, or privileged exist and give voice to collective identities and interests. A public realm or government, however, that pays attention to all these diverse voices has never existed, according to Fraser (1992). Schudson

(1997) concurred, adding that the evidence a true ideal public ever existed is sparse, and that public discourse is not the soul of democracy, for it is seldom egalitarian, may be too large and amorphous, rarely civil, and ultimately offers no magical solution to problems of democracy. Still, Garnham (1992) took a position defensive of Habermas, pointing out that his vision of the public sphere outlines a tragic and stoic pursuit of an almost impossible rationality, recognizing the impossibility of an ideal public sphere and the limits of human civilization, but still stoically striving toward it.

Other critics take on a different point of view, and argue that even though we have now expanded the public to include women and people from all social classes, we are left with a social system where the public does not matter. Carey (1995) for example, argued that the privatizing forces of capitalism have created a mass commercial culture that has replaced the public sphere. Although he recognizes that an ideal public sphere may have never existed, he calls for the recovery of public life, as a means of preserving independent cultural and social life and resisting the confines of corporate governance and politics. Putnam (1996) traced the disappearance of civic America in a similar manner, attributing the decline of a current public not to a corrosive mass culture, but to a similar force, television. Television takes up too much of our time and induces passive outlooks on life, according to Putnam.

This is not a complete review of scholarly viewpoints on the public sphere, but presents an array of academic expectations of the public, and can help us understand if and how the Internet can measure up to these expectations. Can it promote rational discourse, thus producing the romanticized ideal of a public sphere put forth by Habermas and others? Does it reflect several public spheres coexisting on-line, representing the collectives of diverse groups, Fraser posited? Are on-line discussions dominated by elements of anarchy or accord, and do they democracy? Will the revolutionary potential of the Internet be ultimately absorbed by a mass commercial culture? These are questions that guide my assessment of the virtual sphere.

Research on the public sphere potential of the Internet responds to all of these questions. Some scholars highlight the fact that the speedy and cheap access to information provided on the Internet promotes citizen activism. Others focus on the ability of the Internet to bring individuals together and help them overcome geographical and other boundaries. Ultimately, on-line discussions may erase or further economic inequalities. Utopian and dystopian visions prevail in assessing the promise of the net as a public sphere. In the next few pages, I would like to focus on three aspects: the ability of the Internet to carry and transport information, its potential to bring people from diverse backgrounds together, and its future in a capitalist era. This discussion will help determine whether the Internet can recreate the public sphere (that never was), foster several diverse public spheres, or simply become absorbed by a commercial culture.

Information

Much of the on-line information debate focuses on the benefits for the haves and the disadvantages for the have-nots. For those with access to computers, the Internet is a valuable tool for political participation. It provides numerous avenues for political expression and several ways of influencing politics and becoming politically active (Bowen, !996). Internet users are able to get voting records of representatives, track congressional and supreme court rulings, join special interest groups, fight for consumer rights, and plug into free government services (Bowen, 1996). In 1996, Decision Maker, a software program developed by Dutch Marcel Bullinga, enable one of the Netherlands' first political on-line debates, grabbed the attention of the government, and also landed Bullinga a job as senior adviser to the Ministry of Housing, Spatial Planning, and the Environment. Easy access to political information promotes democratic ideals, pushing forth what some refer to as "keypad democracy" (Grossman, 1995). Speedy dispersion of diverse information is at the heart of net-based political activism, thus "hardwiring the collective consciousness" (Barlow, 1995).

Therefore, celebratory rhetoric on the advantages of the Internet as a public sphere focuses on the fact that it affords a place for personal expression (Jones, 1997), makes it possible for little known individuals and groups to reach out to citizens directly and restructures public affairs (Grossman, 1995; Rash, 1997), and connects the government to citizens (Arterton, 1987). Interactivity promotes the use of "electronic plebiscites," enabling instant polling, instant referenda, and voting from home (Abramson, Arterton, & Orren, 1988). Acquiring and dispersing political communication on-line is fast, easy, cheap, and convenient. Information available on the Internet is frequently unmediated, that is, it has not been tampered with or altered to serve particular interests (Abramson, Arterton, & Orren, 1988)

While these are indisputably advantages to on-line communication, they do not instantaneously guarantee a fair, representative, and egalitarian public sphere. As several critics argue, access to on-line technologies and information must be equal and universal. Access must also be provided at affordable rates. Without a concrete commitment to on-line expression, the net as a public sphere merely harbors an illusion of openness (Pavlik, 1994; Pavlik & Williams, 1994; Williams, 1994). The fact that on-line technologies are only accessible to and used by a small fraction of the population contributes to an electronic public sphere that is exclusive, elitist, and far from ideal - not terribly different from the bourgeois public sphere of the seventeenth and eighteenth centuries.

This point is reiterated in recent empirical research of on-line political communities completed by Hill and Hughes (1998). In researching political Usenet and AOL groups, they found that demographically, conservatives were a minority among Internet users. On-line political discourse, however, was dominated by conservatives, even though liberals were the on-line majority. This implies that the virtual sphere is politically divided in a manner similar to the real sphere, thus simply serving as a space for additional expression, rather than radically reforming political thought and structure. Moreover, despite the fact that all on-line participants have the same access to information and opinion expression, the discourse is still dominated by a few. Also, not all information available on the net is democratic or promotes democracy; extremist groups often possess some of the savviest (and scariest!) web sites. Still, Hill and Hughes (1998) point out the encouraging fact that at least people *are* talking about politics and virtually protesting against democratic governments on-line.

Some researchers pose additional questions, such as, even if on-line information is available to all, how easy is it to access and manage vast volumes of information? (Jones, 1997). Organizing, tracking, and going through information may be a task that requires skill and time that several do not possess. Access to information does not automatically render us better informed and more active citizens. In fact, Hart (1994) argued that some media, such as television, "supersaturate viewers with political information," and that as a result, "this tumult creates in viewers a sense of activity rather than genuine civic involvement" (p. 109). In addition, Melucci (1994), argued that while producing and processing information is crucial in constructing personal and social identity, new social movements emerge only insofar as actors fight for control, stating that "the ceaseless flow of messages only acquires meaning through the code that order the flux and allow its meanings to be read" (p. 102). And finally, some even argue that increased on-line participation would broaden and democratize the virtual sphere, but could also lead to a watering down of its unique content, substituting for discourse that is more typical and less innovative (e.g., Hill & Hughes, 1998). Still, this discourse is not less valuable.

In conclusion, access to on-line information is not universal and equal to all. Those who can access on-line information are equipped with additional tools to be more active citizens and participants of the public sphere. There are popular success stories, such as that of Santa Monica's Public Electronic Network, which started as an electronic town square, promoted on-line conversation between residents, and helped several homeless people get jobs and shelter (Schmitz, 1997). Groups like the Electronic Frontiers Foundation, the Center for a New Democracy, Civic Networking, Democracy Net, the Democracy Resource Center, Interacta, and the Voter's telecommunication Watch are a few examples of thriving on-line political stops. Still, on-line technologies render participation in the political sphere more convenient, but do not guarantee it. While the Internet has the potential to extend the public sphere, at least in terms of the information that is available to citizens, not all of us are able or willing to take on the challenge.

Globalization or Tribalization?

Yet another reason why there is a lot of enthusiasm regarding the future of the Internet as a public sphere has to do with its ability to connect people from multiple backgrounds and provide a forum for political discussion. While many praise the possibility of people from diverse backgrounds discussing political issues rationally on-line, others are skeptical about the prospect of diverse groups getting along. These technologies carry the promise of bringing people together, but also bear the possibility of spinning them in separate directions.

Utopian views of the Internet would put forth that computer-mediated political communication will facilitate grassroots democracy and bring people all across the world closer together. Geographic boundaries can be overcome and "diasporic utopias" can be fostered (Pavlik, 1994). Anonymity on-line assists one to overcome real life identity boundaries and communicate more freely and openly on-line, thus promoting a more enlightened exchange of ideas. The Indian newsgroup soc.culture.india is one of many on-line groups that foster critical political discourse among participants that might not even meet in real space and time. For several years this group has harbored lively political discussion on issues pertinent to political future of India (Mitra, 1997).

Still, the existence of a virtual space does not guarantee democratic and rational discourse. Flaming and conflict beyond reasonable boundaries is evident both in PEN and soc.culture.india, and frequently deters or intimidates participants from joining on-line discussions (Mitra, 1997; Schmitz, 1997). Hill and Hughes (1998) emphasized that the technological potential for global communication does not mean that people from different cultural backgrounds will also be more understanding of each other, and they cite several examples of miscommunication. However, they did find that when conversation was focused on political issues, instead of general, it tended to be more toned down (Hill & Hughes, 1998). Often on-line communication is about venting emotion and expressing what Abramson et al. (1988) refer to as "hasty opinions," rather than rational and focused discourse.

Miscommunication set aside, however, what about communication? What impact do our words actually have on-line? Jones (1997) suggested that perhaps the Internet allows us to "shout more loudly, but whether other fellows listen, beyond the few individuals who may reply, or the occasional lurker, is questionable, and whether our words will make a difference is even more in doubt" (p. 30). The same anonymity and absence of face-to-face interaction that expands our freedom of expression keeps us from assessing the impact and social value of our words.

The number of people our virtual opinions can reach may become more diverse, but may also become smaller as the Internet becomes more fragmented. Special interest groups attract users who want to focus the discussion on certain topics, providing opportunities for specialized discussion with people who have a few things in common. As the virtual mass gets subdivided into smaller and smaller discussion groups, the ideal of a public sphere that connects many people on-line eludes us. On the other hand, the creation of special interest groups fosters the development of several on-line publics which, as Fraser noted, reflect the collective ideologies of their members. After all, Habermas' vision was one of "coffee-house" small group discussions.

Furthermore, some contend that the disembodied exchange of text is no substitute for face-to-face meeting, and should not be compared to that. Poster (1995), for example, argued that rational argument, reminiscent of a public sphere, can rarely prevail and consensus achievement is not possible on-line, specifically because identity is defined very differently on-line. Because identities are fluid and mobile on-line, the conditions which encourage compromise are lacking in virtual discourse. Dissent is encouraged, and status markers are absent. Poster concluded that the Internet actually decentralizes communication but ultimately enhances democracy. This brings to mind Lyotard's argument that social movements and democracy are strengthened by dissent and anarchy in communication.

To conclude, the Internet may actually enhance the public sphere, but it does so in a way that is not comparable to our past experiences of public discourse. Perhaps the Internet will not become the new public sphere, but something radically different, that will enhance democracy and dialogue, but not in a way that we would expect it to, or that we have experienced in the past. For example, Internet activist/hacker groups practice a reappropriated form of terrorism on the Internet, by breaking into and closing down big corporations' web sites, or "bombing" them, so that no more users can enter them. This is a new form of activism, more effective than marching outside a corporation's headquarters, and definitely less innocuous than actually bombing a location. One could argue that the virtual sphere holds a lot of promise as a political medium, as long as it is not trying to measure up to real life standards. It is obvious that when people use the Internet to communicate in a language and in a manner similar to real life, a lot of the conflict and discussion that occurs in real life simply carries over. People from different backgrounds may come together, but discussion often leads to miscommunication, and is frequently reduced to the exchange of insults. However, when not confined by real life mindframes and expectations, the true potential of the Internet emerges.

Commercialization

Despite all the hype surrounding the innovative uses of the net as a public medium, the Internet is still a medium constructed in a capitalist era. It is part and parcel of a social and political world (Jones, 1997). As such it is susceptible to the same forces that, according to Carey (1995), originally transformed the public sphere. The same forces defined the nature of radio and television, media once hailed for providing innovative ways of communication. Douglas (1987) detailed how radio broadcasting revolutionized the way that people conceived of communication, and she documented how it built up hope for the extension of public communication and the improvement of democracy. In a similar manner, television inspired similar optimism about televised communication plowing new ground for democracy (Abramson et al., 1988). Nowadays, both media have transformed and produce commercial, formulaic programming, for the most part. Advertising revenue has more impact on programming than democratic ideals do. The concentration of ownership and standardization of programming have been documented by several scholars (e.g., Bagdikian, 1983; Ettema & Whitney, 1994).

For a vast majority of corporations the Internet is viewed as another money making machine; its widespread and cheap access being a small, but not insurmountable obstacle to profit making. On-line technologies, such as banners and portals, are being added to a growing number of web locations to create advertising revenue. Barrett (1996) traced how various communication technologies have destroyed one barrier after another in pursuit of profit, starting with volume, moving to mass, and finally space. He argued that time is the target of the electronic market, the fall of which will signal a more transparent market, in which conventional currency will turn into a "free-floating abstraction" (Barrett, 1996).

Even so, advertising is not necessarily a bad addition to the Internet, because it can provide small groups with the funds to spread their opinions and broaden public debate. To this point, some add that the "very architecture of the net will work against the type of content control these folks (corporate monopolies) have over mass media" (Newhagen, 1995, as cited in McChesney, 1995). McChesney (1995) agreed that the Internet will open the door to a cultural and political renaissance, despite the fact the big corporations will take up a fraction of it to launch their cyberventures. He argued that cyberspace may provide "a supercharged, information packed, and psychedelic version of ham radio" (McChesney, 1995).

McChesney (1995) admitted that capitalism encourages a culture based on commercial values, and that it tends to "commercialize every nook and cranny of social life in way that renders the development or survival of nonmarket political and cultural organizations more difficult" (p.10). He maintained that there are several barriers to the Internet reforming democracy, such as universal access and computer literacy. Computers are not affordable for a large section of the population. I would extend this to a global basis, and add that for several countries still struggling to keep up with technological changes brought along by the industrial era, the Internet is a remote possibility. McChesney concluded that "bulletin boards, and the information highway more generally, do not have the power to produce political culture when it does not exist in the society at large," and that "given the dominant patterns of global capitalism, it is far more likely that the Internet and the new technologies will adapt themselves to the existing political culture rather than create a new one" (p. 13). It seems that the discussion of information access, Internet fragmentation, and commercialization leads back to a main point: How do we recreate something on-line, when it did not exist in real life to begin with? Having reviewed the conditions that both extend and limit the potential of the Internet as a public sphere, I address this question and discuss the nature of the virtual sphere in the following section.

A virtual sphere

Cyberspace is public and private space (Fernback, 1997). It is because of this that it appeals to those who want to reinvent their private and their public lives. Cyberspace provides new terrain for the playing out of the age old friction between personal and collective identity; the individual and a community. Bellah, Madsen, Sullivan, Swidler, and Tipton (1985) argued that individuals can overcome individualistic and selfish tendencies in favor of realizing the benefits of acting responsibly within a moralistic, transcendent social order. Is it possible to do so in cyberspace?

Some have argued that it is not. Cyberspace extends our channels for communication, without radically affecting the nature of communication itself. There is ample evidence to support this in the discussion of political newsgroups, often dominated by arguments and conflicts that mirror those of the real world. Hill and Hughes (1998) concluded that "people will mold the Internet to fit traditional politics. The Net itself will not be a historical light switch that turns on some fundamentally new age of political participation and grassroots democracy" (p. 186). McChesney (1995) agreed that new technologies will adapt to the current political culture, instead of creating a new one, and characterized the Internet as a public sphere as "making the best of a bad situation" (p. 15). Ultimately, it is the balance between utopian and dystopian visions that unveils the true nature of the net as a public sphere.

Fernback (1997) remarked that true identity and democracy are found in cyberspace "not so much within the content of virtual communities, but within the actual structure of social relations" (p. 42). Therefore, one could argue that the present state of real life social relations hinders the creation of a public sphere in the virtual world as much as it does in the real one. This is an enlightened approach, although it does not acknowledge the occasionally liberating features of new technologies. On the other hand, it is the existing structure of social relations that drives people to repurpose these technologies and create spaces for private and public expression. The Internet does possess the potential to change how we conceive of ourselves, the political system and the world surrounding us, but I do not think it will do so in a manner that strictly adheres to the democratic ideals of the public sphere. The reason for this lies in the fact that we transcend physical space and bodily boundaries upon entering cyberspace. This has a fundamental impact on how we carry ourselves on-line, and is simply different from how we conduct ourselves off-line.

A virtual sphere does exist, in the tradition of, but radically different from the public sphere. This virtual sphere is dominated by the bourgeois computer holders, much as the one traced by Habermas consisted of bourgeois property holders. In this virtual sphere, several special interest publics coexist and flaunt their collective identities of dissent, thus reflecting the social dynamics of the real world, as Fraser (1992) noted. The vision of the true virtual sphere consists of several spheres of counterpublics that have been excluded from mainstream political discourse, yet employ virtual communication to restructure the mainstream that ousted them. It is difficult to determine how this structure will affect democracy and political change. Breslow (1997) argued that the net promotes a sense of sociality, but it remains to be seen whether this translates into solidarity. Social and physical solidarity is what spawned political and social change over the course of the century, and the net's anonymity and lack of spatiality and density may actually be counterproductive to solidarity. Ultimately, Breslow (1997) concluded: "How should I know who is at the other end, and when the chips are down, will people actually strip off their electronic guises to stand and be counted?" (p. 255). The lack of a mechanism of firm commitment negates the true potential of the Internet as a public sphere.

Melucci's (1996) approach to new social movements makes more sense in an age when individuals use machines to protest the things that movements like the May '68 movements used the streets for. His main argument is that the social movements no longer require collective action that reflects the interest of a social group; they revolve more around personal identity and making sense of cultural information. Melucci contended that in the last thirty years, emerging social conflicts in complex societies have raised cultural challenges to the dominant language, rather than expressed themselves through political action. Although Melucci implies that such language shifts are ineffectual, the point is that collective action can no longer be overtly measured, but is still present in the creative proclamation of cultural codes. What Melucci termed identity politics allows room for both the private and public uses of cyberspace. The virtual sphere allows the expression and development of such movements that further democratic expressions, by not necessarily focusing on traditional political issues, but by shifting towards the cultural ground.

Culturally fragmented cyber-spheres make out the future of the public sphere. Groups of netizens (those who frequently access and discuss issues over the net) brought together by common interests will debate and perhaps strive for the attainment of cultural goals. Much of the political discussion taking place on the net does not, and will not sound different from that taking place in casual or formal face-to-face interaction. The widening gaps between politicians, journalists and the public will not be bridged, unless both parties want them, too. Still, people who under real life circumstances would never be able to come together to discuss political matters are able to do so. The fact that people from different cultural backgrounds, states, or countries involve themselves in virtual political discussions in the matter of minutes, often expanding each other's horizons with culturally diverse viewpoints captures the essence of this technology. The value of the virtual sphere lies in the fact that it encompasses the hope, and speculation, and dreams of what could be. Castells noted that "we need Utopias - on the condition of not trying to make them into practical recipes" (in interview w/ Ogilvy, 1998, p. 188). The virtual sphere reflects the dynamics of new social movements that struggle on a cultural, rather than a traditionally political terrain. In this manner, it will play a key part in future political systems that may be radically different from previous ones.

Therefore, future research should document the ways in which computer mediated communication presents a unique alternative to more conventional methods of political communication. Research should describe the unique nature of political on-line discussion, and determine how it differs from face-to-face interactions. Some researchers have already focused on these tasks, but more conclusive information is needed before we determine the true potential of the Internet as a new public sphere. We should also focus on the impact that political talk and actions on-line have in the real world. We may debate issues aggressively with people all over the world, but is this influencing government politics, and ultimately, is it leading to some type of social reform? In this paper, I outlined some of the ways in which the Internet may transform politics or may be transformed by politics. I also listed and deliberated several of the limits and advantages to the Internet becoming a virtual sphere. Our task as researchers, is to determine whether the virtual sphere will remain an unattainable utopia, or will actually contribute to the improvement of our public lives.

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Toward a Typology of Internet Users and Online Privacy Concerns

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Toward a Typology of Internet Users and Online Privacy Concerns

Abstract

Americans overwhelmingly report that they are concerned about their privacy online, yet online commerce continues to grow and few users report any incidence of privacy invasion online. Privacy has always been considered situational: the contextual nature of the Internet enhances its complexity. This is explored using a national sample of online consumers. A previously developed tripartite typology of consumers and their approaches to privacy is used to examine online users privacy concern. In an e-mail survey, respondents indicated their level of privacy concern with various online practices. These results were used to segment online users into groups based on the established typology. The findings of this study suggest that the pre-established typology is too limited to capture the nature of Internet privacy concern, and a four-part typology is provided and discussed. Implications for communicators and policy makers are provided.

Toward a Typology of Internet Users and Online Privacy Concerns

As Americans venture on to the Information Superhighway in increasing numbers, the status of information privacy online is becoming of key interest to consumers, academics and policy makers. Privacy has been ranked as the top concern of all Internet users (Kehoe, Pitkow and Morton, 1998). Eighty-one percent of adults recently reported that they were concerned about privacy online (FTC, 1998), and 78% of online users worry about maintaining their privacy online (NUA, 1998). A majority (61%) of online users has never seen a privacy policy posted online (FTC, 1998), suggesting that online content providers may not be recognizing the concerns of the online public.

A separate body of evidence suggests that online consumers are becoming more confident in their privacy online, particularly in regards to online commerce. For example, two-thirds of online consumers made at least one online purchase in December 1998 (Greenfield Online, 1998). This is an increase from April 1998, when less than half of online consumers had purchased something online (Greenfield Online, 1998). Concerns with privacy appear to decrease as online users become more experienced with the Internet (NUA, 1998). And despite reported high levels of concern with privacy, only 6% of online users believe that they have had their privacy invaded online (FTC, 1998).

This paradox between online privacy concern and confidence in online activities can be explained because many individuals realize that they have to give up some privacy to participate in the consumer world (Gandy, 1993), whether that world is off-line or online. It is also important to recognize that all individuals do not perceive privacy similarly because privacy is highly contextual (Schoeman, 1984). This contextual nature suggests problems for researchers trying to understand individuals' online privacy concern, as well as for policy makers attempting to build a policy that will address the needs of both individuals and online content providers. Life on the Internet is also contextual in that it provides and encourages a celeritous, two-way flow of communication between individuals and entities (McRae, 1997). Online, context is created in multiple ways: through self-presentation, modes of speech, and community identifications. Additionally, content is created without traditional visual cues (McRae, 1997). This increase in the complexity of communications suggests that privacy online may differ from privacy in the traditional sense.

Westin developed a tri-part typology of consumers based on their concerns with privacy in the 'traditional' (i.e. not online) marketplace (FTC, 1996). Westin's study suggests that consumers can be categorized into three groups based on their privacy concern: those that are concerned with all manner of practices that effect their privacy, those who are completely unconcerned about their privacy, and those who are pragmatic in their concern. According to Westin (FTC, 1996), the majority of consumers adopt a pragmatic viewpoint, reflecting the contextual nature of privacy.

The purpose of this study, then, is to explore online individuals' concern with privacy and attempt to categorize online consumers using Westin's typology as a guide. As an exploratory study, two specific research questions are asked:

1. Can online users be segmented into distinct groups based on Westin's typology of privacy concern?
2. If so, are there differences in these groups based on demographics and/or their computer usage?

To answer these questions, a national study of individuals with personal Internet accounts was undertaken. Respondents' concerns with privacy online were assessed, along with various demographic and computer usage information. This study discusses the contextual nature of privacy is discussed. Next, a national study of online users conducted via electronic mail (e-mail) is described.

The results of this study allowed for the categorization of individuals using Westin's typology. These findings are presented, and demographic and computer usage differences among groups are provided.

Review of the Literature

What is privacy? Definitions vary depending on the context. Brandeis and Warren's (1890) assertion of privacy as the right to be left alone has been the basis of privacy legislation for most of this century. The law of privacy for individuals in society developed out of concern for balancing governmental needs and policies against the needs of individuals (Moceyunas, 1996). In 1965, the Supreme Court described privacy as a fundamental right, having two components: first was individuals' interest in avoiding disclosure of personal matters, and second was individuals' interest in independence in making certain types of personal decisions (Griswold v. Connecticut, 1965).

The law continued to develop in response to the increased ability of the government to collect, sort and disclose data about individuals using computer databases. In 1977, the Supreme Court described privacy as "including the right of the individual to be free in his private affairs from government surveillance and intrusion and the right of an individual not to have his private affairs made public by the government (Whalen v. Roe, 1977, n. 24)". In Whalen v. Roe, privacy was found not to be a fundamental right, but came under the rubric of informational privacy. Informational privacy deals with individuals' control over information about themselves, and suggest a balance between individuals' interest in privacy and states' interest in restricting liberty so that no presumption of state legitimacy exists (Rubenfeld, 1989).

The contextual nature of privacy is evident in more recent definitions of privacy.

Schoeman (1984) proposed that privacy as a state or condition of limited access to individuals. Individuals have privacy to the extent that others have limited access to information about them, limited access to the intimacies of their lives, or limited access to their thoughts or their bodies. In other words, privacy is protecting individuals from any overreaching control of others (Schoeman, 1992). The contextual nature of privacy is evident since concepts of privacy can change according to environmental and personal factors. This recognizes that individuals' desire for privacy is innately dynamic. Individuals are continually engaging in an adjustment process in which desires for privacy are weighed against desires for disclosure and personal communication with others (Kimmel, 1996). The adjustment occurs in the context of various situational forces, such as pressures from others, societal norms and processes of surveillance used to enforce them (Kimmel, 1996). This definition, then, recognizes that privacy does not exist in a vacuum in society. Instead, privacy both influences and can be influenced by societal forces.

Hoffman (1980) defined information privacy in terms of three distinct rights: the right of individuals to determine what information about themselves to share with others, the right of individuals to know what is being collected about them, and the right of individuals to access data in order to maintain society and regulate government. These three rights all involve degrees of control over information about one's self and one's environment, again suggesting the contextual nature of privacy. Regan (1995) suggests privacy should be defined as the right to control information about and access to oneself. This definition suggests that privacy is seen as a function of individual interest and choice. Regan (1995) asserts that privacy as a value must be balanced against other values that individuals see as important, including freedom of the press, law and order, and national security. The contextual nature of privacy becomes evident since individuals appear unconcerned about privacy until it is threatened or invaded, the definition of privacy either depends on or derives from the nature of the threat to privacy (Regan, 1995). Regan's definition combines both the control aspect suggested by Hoffman (1980) as well as the concept of a limited state suggested by Schoeman (1984). The contextual nature of privacy as suggested by Regan is also a valuable addition to the privacy definition debate. This contextual nature also provides the opportunity to view privacy as a continuum (McLean 1995). At one end is extreme privacy, or introversion exaggerated to the point of no connection with the outside world. At the other end is totalitarianism, where retention of privacy is resistance to state control. As a result, according to McLean (1995), most commentators indicate that individuals strive toward some sort of balance, where privacy is controlled somewhat yet individuals still participate in the outside world.

Privacy Typologies

Consumers have privacy thresholds that vary based on what information is collected about them, how the information is collected, and who collects the information (Cespedes and Smith, 1993). To illustrate the contextual nature of privacy, Westin segmented individuals into three distinct groups (FTC, 1996). Individuals in the first group, termed 'Fundamentalists,' tend to always choose privacy controls over consumer benefits. For example, Fundamentalists would probably not sign up for supermarket 'value card' programs that would provide discounts to shoppers. Fundamentalists' decision not to participate in this activity would stem from a belief that the practice is a violation of their privacy, since participation in these types of programs rely on consumers to provide significant quantities about themselves, their families and their purchase habits in order to get the card. This group represents about 25% of all individuals in the United States (FTC, 1996). At the opposite end of the continuum are the 'Unconcerned' individuals who are willing to forego most privacy claims in exchange for service benefits. These individuals would likely sign up for all manner of value cards. without thought to their privacy. if they saw that the cards would provide lower prices. Unconcerned individuals represent about 25% of all individuals (FTC. 1996) .The remaining 50% are 'Pragmatists' (FTC. 1996). These people weigh the benefits of various consumer opportunities and services against the degree of personal information sought. Westin suggests that individuals will accept the need to disclose personal information if they perceive that an activity presents a benefit or opportunity to them. and that they feel that the basic principles of fair information practices are being followed by the entity requesting the information. For example. Pragmatists would evaluate the information requested in each card offering and determine if the information requested was equal in value to the benefits offered by the card. If so. they would be likely to sign up for the card. If the benefit was not equal (for example. if the supermarket stated they would sell the information about their purchasing habits to other companies). there is a likelihood that the Pragmatists would not participate in the offering. Understanding the approaches and relative sizes of these three groups is important since it recognizes the opportunities for marketers. Westin suggests. for example. that marketers should not be concerned about the Fundamentalists: that there is little that can be done to make them more comfortable with marketing processes. However. since the remaining two groups represent 75% of all consumers. satisfying both groups can immensely benefit marketers.

Smith (1994) used an earlier version of Westin's typology (Harris. 1991) to categorize a group of individuals participating in a focus group about privacy. In Smith's study. the same sample of individuals was categorized twice: prior to and after a focus group discussion on privacy. Prior to the discussion. Smith found that majority (72%) of the individuals in the group were Pragmatists: only 11% were Unconcerned and 17% were Fundamentalists. The focus group discussion centered on various policies and practices of businesses regarding personal information. The moderator of the group put forth information about various practices with a balanced approach that highlighted benefits as well as risks to the practices. Smith reported that it became apparent during the discussion that many of the participants were not aware of how companies used information collected during transactions. For example, none of the participants were aware that credit card issuers sometimes use information about consumer purchase transactions to place cardholders in psychographic categories. After the discussion, a majority of the Pragmatists were exhibiting opinions that would classify them as Fundamentalists. In addition, these 'nouveau Fundamentalists' were much more concerned and emotionally expressive about their opinions and concerns. Smith suggested that this change could be a temporary phenomenon indicating that some Pragmatists seemed to think like Fundamentalists on particular issues. Smith also suggested that in some situations, Pragmatists could actually become Fundamentalists.

Method

Overview

In order to assess current attitudes towards privacy concern among online users, an e-mail survey was sent to 3724 individuals whose e-mail addresses were generated using the Four11 Directory Service. The 889 completed surveys constitute a 24% response rate and provide a nationally representative sample of online users. The survey included questions that assessed privacy concern with various online communication-related scenarios, computer usage and demographic information.

Sampling Procedure

A two-step probability sampling procedure was used to randomly select a nationally representative sample of online users. The sampling frame consisted of individuals with personal e-mail addresses who could be identified via the Four11 Directory Service, a global, directory of 15 million names and e- mail addresses (Four11, 1997). The Four11 search engine allows a search of an individual's e-mail address based on completing some or all of the following search fields: name, city, state/province, country, or domain name of the ISP. Based on the amount of information provided in the search fields, multiple names and e-mail addresses may be provided.

The search field used to generate e-mail addresses for this study was "domain name." Thirty-five domain names were systematically selected from Network USA's Internet Service Provider Catalog, which is a comprehensive online list of commercial personal ISPs in the United States organized by state and area code. Every sixth service provider was selected for inclusion on the list resulting in representation of all regions of the country. No duplicate providers were selected.

By supplying only a domain name, the Four11 search engine provides either a complete list of entries if less than 200 people subscribe to the ISP or a selected sample of 200 names and e-mail addresses within that domain if there were more than 200 entries. A sample of provided addresses was used for the current study.

Survey Measures

To assess concerns with privacy fifteen statements were presented reflecting scenarios which represented five different privacy influences (awareness of data collection, information use, information sensitivity, familiarity with entity and compensation for information provision). For each influence, three different situations were presented, one reflecting a situation that would cause a low degree of privacy concern, one that would cause a moderate degree of privacy concern, and a third that would cause a high degree of privacy concern. These fifteen situations (see Table 1) were adapted either from previous studies of privacy in the off-line context (e.g. Nowak and Phelps, 1992; 1995) and adapted for the online environment, or developed from pre-tests of available measures.

The fifteen statements shown in Table 1 were presented in random order. The respondents were instructed to consider each statement from the point of view of an individual using the Internet for personal (as opposed to business) use. They were then asked to indicate their level of privacy concern for each scenario using a seven-point bi-polar scale with 1 (not at all concerned) to 7 (highly concerned) as endpoints. The use of the word "concern" to measure privacy has been well documented (Kerlinger, 1984) and has been used in similar research (Nowak and Phelps, 1992). In addition to the statements regarding privacy concern, respondents were profiled in terms of computer usage and demographics. The demographic section concluded the survey and measured gender, age, education, household income and state of residence.

Survey Administration

One week before the survey was distributed, each prospective sample member received a solicitation e-mail which described the study and invited the individual to participate. This technique is frequently used in traditional mail surveys to enhance response rates and secure cooperation, but is imperative in the online environment because unsolicited e-mail surveys are "clearly unacceptable" (Mehta and Sivadas, 1995). The e-mail solicitation provided potential respondents with the opportunity to opt-out and indicate that they did not wish to receive the survey. Individuals who had not opted-out received the e-mail survey along with instructions on how to reply via e-mail and assurance of confidentiality. The survey was nine computer screens long or approximately three printed pages. If the respondent had not returned the e-mail survey within one week, a reminder e-

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mail was sent along with another copy of the survey. Because return e-mail includes an identification tag regarding the sender's e-mail address, it was possible to identify individuals who had not yet responded as well as insure that there were no duplicated responses.

Two pretests of the procedure involving a total of 350 selected e-mail addresses revealed a 25% undeliverable e-mail rate, a 14% percent decline rate and a completed survey response rate of 23%. The traditional formula for calculating the necessary sample size to provide a representative sample of a population (McDaniel and Gates, 1993) was used and resulted in a target sample size of 864 with a 95% confidence level. Therefore, assuming a 23% response rate, 3756 viable e-mail addresses would need to be solicited. To compensate for estimated undeliverable e-mail solicitations and replacement of individuals who declined to participate, 5000 e-mail addresses were selected . Actual administration of the solicitation and survey showed an undeliverable rate of 26%, a decline rate of 12% and a completed survey rate of 24%.

Sample

Table 2 shows the demographic and computer usage profile of the 889 respondents. Approximately 70% of the respondents were men and 42% were between the ages of 18 to 34. The respondents were well-educated with more than sixty percent earning a bachelor's degree or higher. Nearly half of the sample had a household income of $60,000 or more. These respondents are comparable to Internet user profiles reported in other studies (e.g. Pitkow and Kehoe, 1997; Kehoe, Pitkow and Morton, 1997). Thirty-eight states were represented.

Results

Developing the Typology

As a first step, a priori categorization of respondents was performed based on Westin's typology (FTC, 1996). To do so, a variable was created called 'total concern'. This new variable summed each of the concern scores for the fifteen situations assessing concern with privacy. The Total Concern scores ranged from 15 to 105. A score of 15 would represent an individual for which none of the situations caused concern with privacy. A score of 105 would represent an individual for which every situation caused extreme concern with privacy. The mean total concern score was 58.86, with a standard deviation of 18.93. Cronbach's Alpha for the measure of Total Concern was .92.

The total concern score was used to segment respondents into three groups that mirrored Westin's typology. Respondents whose total concern score ranged from 15 to 30 were viewed as similar to Westin's 'unconcerned' group. For these respondents to the current study, the fifteen situations appeared to cause a minimal level of concern. About 16% of the respondents were part of the 'unconcerned' group of online consumers, compared to 25% of consumers in Westin's study.

Respondents whose total concern score ranged from 31 to 89 were classified according to Westin's typology as 'pragmatists'. These respondents had levels of privacy concern that varied according to the specific situation assessed. Eighty-one percent of the respondents to the current study were part of this group, compared to 50% of consumers in Westin's study. Respondents whose total concern score was 90 or higher were designated as 'fundamentalists', meaning that they displayed consistently high levels of concern with all situations involving their privacy. In this study, only 3% of respondents were designated as fundamentalists, as compared to 25% in Westin's study.

As indicated below, these findings show significant differences between online consumers responding to this survey and consumers in Westin's studies (FTC, 1996), with more respondents in the current study comprising the 'pragmatists' category.

Typology Comparison

	Current Study	Westin
Fundamentalists	3%	25%
Pragmatists	81%	50%
Unconcerned	16%	25%

Chi Square = 24.035, $p<.0001$

Given this finding, Westin's typology was revised to segment consumers into four distinct categories. The large group termed 'pragmatists' was divided into two groups: those whose total concerned ranged from 31 to 60, and those whose total concern ranged from 61 to 89. These a prior segmentations reflect two approaches to pragmatism. First, there is a group of respondents whose total concern was somewhat higher than the unconcerned group of consumers and at a moderate level overall. Second, there is a group of consumers with a total concern score at a moderately high level yet not as high as the most concerned group. This categorization results in a typology consisting of four unique groups of online consumers, based on their privacy concern. The four groups have been termed "Carefree Surfers", "Practical Surfers," "Apprehensive Surfers", and "Alarmed Surfers." A brief description of each group is found below.

Carefree Surfers: online users with a total concern score of 30 or less (mean total concern=20.53). These individuals reported minimal concern with most of the fifteen situations, and represented 16% of total respondents. The only situation with which these respondents were highly concerned was being asked to provide one's Social Security Number to register for a web site: a situation which generated high levels of concern among all respondents.

Practical Surfers: online users with a total concern score between 31 and 60 (mean total concern=46.65, significantly higher than that of Carefree Surfers). Individuals in this group felt a low to moderate level of concern with most situations. Two of the situations caused a somewhat higher level of a concern: in addition to the social security number situation mentioned previously, these users were also concerned about secondary usage of information outside of the company where the information was originally collected. This group represented the 38% of total respondents.

Apprehensive Surfers: online users with a total concern score between 61 and 89 (mean total concern=72.84, significantly higher than Practical Surfers). This group felt a moderate level of concern with most situations. Three of the situations caused a high level of concern: in addition to the situations described previously, this group was also highly concerned about clandestine collection practices. This group represented 43% of the total respondents.

Alarmed Surfers: online users with a total concern score above 90 (mean total concern= 96.26, significantly higher than Apprehensive Surfers). This group is highly concerned with privacy in all situations. This group represented 3% of total respondents.

The mean total concern scores for these four groups are all significantly different from each other ($f=1203.48$, $p<.0001$). Given this, it then becomes possible to address the second research question, and to see if these groups exhibit any differences based on demographic and computer usage and activities.

Inter-group differences: demographics

Table 3 provides demographic profiles of each of the four groups. There are not significant differences among the four groups in terms of gender and household income. In all groups, the respondent profile consists of more men than women, and about half of the respondents in each group report household incomes between $20,000 and $59,999. There are differences, however, in terms of age and education.

Age. In reviewing the age differences among the four groups, it is apparent that a bi-polar difference is seen. The Carefree and Alarmed Surfers (i.e. respondents reporting the lowest AND highest levels of privacy concern) are somewhat older than the Practical and Apprehensive Surfers (the two pragmatic groups). More than 40% of respondents in both Carefree and Alarmed Surfers are age 45 or older, where only about 30% of the Practical and Apprehensive Surfers are 45 or older.

Education The two groups of users with lower total privacy concern scores (i.e. the Carefree and Practical Surfers) tend to be less well educated than the users with higher total privacy concern scores (i.e. the Apprehensive and Alarmed Surfers). While about 15% of the lower concerned groups have master's degrees or higher, about one-fourth of the higher concerned groups hold a master's degree or higher. This suggests that persons with higher levels of education are more concerned about their privacy online than persons with less education.

Inter-group differences: computer usage and actions

Table 4 provides a summary of the computer usage and action profiles for the four groups. There are not significant differences in terms of some basic computer usage areas. Respondents in all groups report using computers between eleven and thirteen years, and about three-fourths of their time spent using the Internet occurs in the home. The majority of respondents in all groups report going online regularly and checking their email several times a day. Less than one-third of respondents adopt an online personae. The majority of respondents in all groups receive unsolicited e-mail.

Respondents in the four groups were also similar in their adoption of certain online actions: respondents read their unsolicited e-mail about half of the times they receive it, and only occasionally ask to have their names removed from mailing lists. However, some interesting differences in actions among the four groups are seen.

Notifying ISP about unsolicited e-mail. When it comes to complaining, the data suggest a correlation between privacy concern and the frequency that an individual complains to his or her ISP about unsolicited e-mail. Alarmed Surfers complain most often (3.16 on a 1 to 7 scale, where 1-never and 7=always);. Apprehensive Surfers complain significantly less (mean 2.07); Practical Surfers complain significantly less than the Apprehensive Surfers (mean 1.49). Carefree users rarely complain (mean 1.29). Significant differences among all four groups were evident (F=19.22, p<.0001).

Requesting removal from mailing lists. Alarmed Surfers request that their names be removed from mailing lists about half of the times that they have the opportunity to do so (mean=4.04). The other groups report a significantly lower frequency is requesting removal (f=4.69, p=.0030).

Flaming senders of unsolicited e-mail. Respondents in all groups rarely or occasionally flame entities that sent them unsolicited e-mail. The most concerned group, Alarmed Surfers, report a significantly higher incidence of flaming than the other three groups (mean for Alarmed Surfers=2.43). The Apprehensive group reported that they flamed less frequently (mean=1.65) than Alarmed Surfers, however, this group reported significantly higher levels of flaming than Carefree and Practical Surfers (mean=1.55 and 1.34, respectively). This may suggests that increased levels of concern may lead to the adoption of harsh behavior on the Internet, although this finding is tempered in light of the low overall incidence of flaming.

Registering for web sites. The less concerned respondents (the Carefree and Practical Surfers) register for web sites about half of the time that they encounter such sites (mean scores 3.38 and 3.40, respectively). This frequency of registration is significantly higher than that of the more concerned respondents, who gave out information less than half of the time (mean=2.95 for Apprehensive Surfers and 2.38 for Alarmed Surfers). This suggests that concern with privacy may effect whether users will provide information to web sites.

Providing incomplete data when registering for web sites. The Carefree Surfers provide incomplete data less frequently than the other three groups (mean score=3.18 for Carefree Surfers; for other groups, the lowest mean score was 3.58 for Practical Surfers). Providing incomplete information is one way to protect one's privacy while still participating in online communications; perhaps that is the reason why the more concerned Surfers choose to adopt that behavior more frequently than the Carefree Surfers.

Providing inaccurate data when registering. Alarmed and Apprehensive Surfers provide inaccurate data more often than the Carefree and Practical Surfers. Alarmed and Apprehensive Surfers provided inaccurate information occasionally (mean scores 2.30 and 3.05, respectively) while the mean scores for Carefree and Practical Surfers rarely do so (mean scores for both groups were 2.0 or below). As with the previous finding, providing inaccurate data is one way to continue to participate in online activities while protecting one's privacy.

Summary

Given the above findings that indicate that each of the four groups exhibit unique characteristics, it is apparent that Westin's tripartite typology is too limited to use for categorizing online users. The segmenting of Westin's "pragmatic" group into two groups for this study (i.e. the Practical and Alarmed consumers) appears appropriate since these groups display both similarities and differences in demographics and computer usage (e.g. similarities in terms of age and frequency of asking for removal from mailing lists and differences in terms of income and frequency of registering for web sites). Two key demographic variables that appear distinctive for the groups, that is, this typology suggests that one's orientation to privacy concern can be based on their age and their level of education.

Online User Typology of Privacy Concern

		Age	
		Younger	Older
Education	Higher	Apprehensive	Alarmed
	Lower	Practical	Carefree

To briefly summarize the differences between the four groups:

Carefree Surfers exhibit minimal concern with privacy online. They are somewhat older than average and tend to have a Bachelor's education or less. Carefree Surfers rarely complain to their ISPs about unsolicited e-mail or send flames, and register at web sites about half of the time they encounter such sites. They rarely provide inaccurate information.

Practical Surfers have minimal concern with privacy online overall although some situations may cause them to have higher levels of concern. They are somewhat younger than average with Bachelor's or less education. In terms of their behaviors, they are similar to the Carefree Surfers: they rarely complain about mail to their ISP and are the least likely group to send a flame. They register for about half of the web sites they encounter, but they are more likely than the Carefree Surfers provide incomplete information during about half of their registration activities.

Apprehensive Surfers have a moderate level of concern with their privacy in many situations, and several situations cause them to experience higher than average concern with privacy. These users tend to be younger and better educated. They occasionally complain about unsolicited e-mail and are somewhat more likely to send a flame than the Practical Surfers. They occasionally register for web sites, and likely to provide incomplete information when registering.

Alarmed Surfers are highly concerned about their privacy online. They tend to be older with higher levels of education. They are most likely to complain about unsolicited e-mail and to flame senders of unsolicited email. They rarely register for web sites, and when they do, they are likely to provide incomplete and inaccurate data.

Discussion

This four-part typology suggests that the vast majority of online users have concerns about privacy that vary depending on the situation. This finding supports previous assertions as to the contextual nature of privacy (Schoeman, 1984). The high percentage of respondents that fall into a pragmatic category also suggests that the contextual nature of the Internet heighten the contextual nature of privacy online. This finding also supports McLean's (1995) proposition that that individuals strive toward some sort of balance, where privacy is controlled somewhat yet individuals still participate in the outside world. For many, the Internet may still be a novelty, and online users are as yet determining how to behave online when faced with privacy concern. The uniqueness of the situations may also influence how they assess the situation and their own behavior. These forces combine to create a highly contextual approach toward privacy for online users.

This contextual nature makes it difficult to predict how online users will perceive any specific situation adapted by an online content provider. While the discussion above noted some tendencies, it is also important to state that these are merely tendencies: many online consumers who don't fit the profiles outlined above may still fall into that segment when it comes to their own privacy concern. Smith (199) found that people can easily change their orientation to privacy, given the specific situation being assessed. Give the high percentage of respondents who appeared pragmatic about privacy concern. Smith's finding may also be likely to appear online. A very small number of online users are concerned about all types of practices online. The challenge becomes understanding the complexities of interactive communication to determine at which points many online users exhibit a level of concern which will cause them to act not in accordance with the desires of online communicators.

From a policy perspective, it becomes apparent that policy makers must tread lightly when considering any policies that may limit the activities of online content providers. As stated earlier, virtually no practices assessed in this study, with the exception of requesting Social Security numbers, consistently cause high levels of concern among all Surfers. Any attempts at limiting potential activities and benefits for online users may cause a severe backlash among online users. Policy makers should instead focus on ways for online users to become better educated about their own rights and responsibilities online. This study showed that online users rarely adopted certain practices that could help protect online privacy. Indeed, in written commentary, many respondents indicated that they were unaware that they could do certain things, such as provide incomplete or inaccurate information. Online users may also be unaware of other measures, such as opting out mechanisms, which might change some of their online behaviors. Education of online users as to the consequences of actions seems like a good first step at this point.

The urgings of both the FTC and the DMA that online content providers provide their privacy policies on a place that is easy to find on their web sites is a first step to raise awareness and educate online users about the consequences of their online activities. Brin (1998) also suggested that government agencies educate online users by promoting information about online practices and complaints. As an example, he notes the Federal Aviation Administration's policy of publishing consumer airline complaints each month. This policy serves to better inform airline patrons of important, factual information to help them make decisions. This could work in the online environment given the ability of the FTC to collect complaints through online forms at their web sites (www.ftc.gov). These complaints could, for example, be collapsed into a description of the top ten types of complaints and /or the types of sites receiving the most complaints. For example, during the post-holiday season, it was likely that the inability of online retailers to accept and handle returns would have likely been a top complaint and a top type of site. If a group like the FTC publicized this type of information, online users would be aware of what types of tings to look out for when they are surfing.

Conclusions and Future Research

This study explored differences in online users in respect to their privacy concerns. It used an established typology and assessed whether online users fit well into this typology. The typology was broadened to take into consideration more of the contextual aspects of the Internet.

As an exploratory study, it suffers from some limitations. First of all, given the sensitive nature of the topic of privacy online, it is possible that some individuals who are highly concerned about this issue did not answer the survey. Thus, the Alarmist category may be underreported. This type of bias is present in all studies of privacy, and several steps were taken to minimize any potential bias. Respondents were guaranteed anonymity, and the technique of using a computer (i.e. e-mail) for answering sensitive questions has been shown to minimize response bias (Kerlinger, 1984). An additional limitation is due to the fact that since this was an exploratory study, a pre-established typology was used. While data indicate that this typology was a good base for the start of this exploration, future research could attempt to create a new typology without a priori standards that might more fully capture issues of Internet privacy.

Other findings from this study suggest other areas for future research. For example, future research could further study these four groups to understand more about their motivations. From the current data, is apparent that only the Alarmed Surfers are the only ones who seem to consistently take actions to protect their own privacy. Future research could investigate why this occurs: how have they learned about these actions, and how do they choose when to adopt them. How strong is the knowledge among online users overall as to what actions can be taken to protect their own privacy?

The contextual nature of the Internet presents a challenge to researchers, as we attempt to find the best ways to study interactive communication. The use of accepted typologies to assess new technology is one way to begin to address this challenge. As an exploratory effort, this study highlighted similarities and differences between 'traditional' and 'online' privacy concerns. Further study of the effects of privacy concern on the attitudes and behaviors of online users will add to this knowledge and help to determine which types of existing frameworks are best suited to study the Internet.

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Table 1
Situations and Behaviors Presented in Survey

Situations*
You receive e-mail from a company you have sent e-mail to in the past.
You receive e-mail from a company whose web page you recently visited.
You receive an e-mail and have no idea how the company got your address.
A company requests your e-mail address only to send information of interest.
A notice on a web page states that information collected is used by other divisions of that company.
A notice on a web page states that information collected on that web page may be sold to other companies.
You are asked to provide your name to access home page.
You are asked to provide names of newsgroups read to access home page.
You are asked to provide your Social Security Number to access home page.
You receive e-mail about a new product from a company you currently do business with.
You receive e-mail about a new product from known company you don't do business with.
You receive e-mail about a new product from a company you've never heard of.
A web page requires your e-mail address to access the page. Upon registration, you will receive a mouse pad
A web page requires your e-mail address to access the page. Upon registration, you will receive a 25% discount on future purchases.
A web page requires your e-mail address to access the page. Upon registration, you will be entered in a contest to win a computer (value: $1000).

Behaviors**
Reading unsolicited e-mail.
Registering (i.e. providing information about oneself) for Web sites.
Providing inaccurate information when registering for web sites.
Providing incomplete information when registering for web sites.
Notifying Internet Service Providers about unsolicited e-mail.
Requesting removal from e-mail lists.
Sending highly negative messages to entities sending unsolicited e-mail (e.g. 'flaming')

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*Concern with privacy in each situation measured using a 1-7 scale where 1=not at all concerned and 7=extremely concerned.

**Frequency of adopting behavior measured using a 1-7 scale where 1=never take action and 7=always take action.

Table 2
Respondent Profile: Demographics (N=889)

Demographic Characteristic		Percentage of Respondents
Gender	Male	70.4%
	Female	29.6
Age	18-24	16.7%
	25-34	25.5
	35-44	27.3
	45-54	20.7
	55-64	7.1
	65+	3.0
Household Income	Less than $20,000	5.7%
	$20,000-39,999	21.7
	$40,000-59,999	28.6
	$60,000-79,999	21.7
	$80,000-99,999	12.7
	$100,000+	9.6
Education Level	High School or Equivalent	38.7%
	Bachelors' Degree	40.0
	Masters Degree	15.7
	Doctoral Degree	5.6
Adopt an online Personae	Yes	28.6%
	No	71.4
Access the WWW in Past Six Months	Yes	99.0%
	No	1.0
% of Time Spent Online by Place of Access	Home	72.8%
	Work	22.0
	School	4.1
	Other	1.1
Frequency of Checking E-Mail	Several Times each Day	66.2%
	Once per Day	20.6
	Several Times each Week	11.2
	One time each Week	1.7

Less Often than One Time Each Week	0.2

Table 3
Group Comparisons: Demographic Differences

		Carefree	Practical	Apprehensive	Alarmed	Difference
Total Concern		20.53	46.65	72.84	96.26	1203.48/.0001*
Gender						
	Male	71%	76%	66%	67%	insignificant
	Female	29	24	34	33	
Age						
	18-24	21%	21%	11%	12%	37.441/001**
	25-34	18	26	29	17	
	35-44	19	24	30	21	
	45-54	29	23	19	33	
	55-64	9	3	9	4	
	65+	5	2	3	13	
Education						
	BA or less	85%	80%	67%	67%	21.659/.010**
	MA or higher	15	20	33	33	
HHI						
	Less than $20K	3%	4%	7%	0%	insignificant
	$20-39.9K	20	22	22	7	
	$40-59.9K	36	29	26	43	
	$60-79.9K	15	20	24	21	
	$80-99.9K	14	15	10	14	
	$100K+	12	9	10	14	

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*Using Anova
** Using Chi-Square

Table 4
Group Comparison: Computer Usage

	Carefree	Practical	Apprehensive	Alarmed	Difference F/Prob
Total Concern	20.53	46.65	72.84	96.26	1203.48/.0001*
Years Online	11.12	12.16	12.06.	10.38	insignificant
Days gone online In past 14 days	11.28	10.94	10.68	10.42	insignificant
Amount of time online by place					insignificant
Home	76%	73%	74%	72%	
Work	19	20	23	23	
School	4	6	3	4	
Other	2	1	2	1	
Received unsolicited e-mail	88%	90%	91%	96%	insignificant
Check e-mail several times each day	67%	70%	61%	58%	insignificant
Adopt online personae	29%	27%	30%	27%	insignificant
Frequency of: reading unsolicited e-mail	3.8	3.59	3.46	2.72	insignificant
notifying ISP about unsolicitied e-mail	1.29	1.49	2.07	3.16	19.22/.0001*
asking for removal of names from mailing list	2.41	2.62	2.97	4.04	4.69/.0030**
flaming senders of unsolicited e-mail	1.55	1.34	1.65	2.43	2.44/.0628***
registering for web sites	3.38	3.40	2.95	2.38	6.39/.002+
providing incomplete data when registering	3.18	3.58	3.85	3.94	3.52/.0149++
providing inaccurate data when registering	2.00	1.95	2.30	3.05	3.4/.0174+++

*Significant differences for all groups
**Significant difference between Alarmed and all other groups
***Significant difference between Alarmed and all other groups, and Apprehensive and all other groups
+Significant difference between Practical and Apprehensive groups, and Practical and Alarmed groups
++Significant Difference between Apprehensive and Carefree groups, and Alarmed and Carefree groups
+++Significant difference between Practical and Alarmed Groups

Blind Spots of the Communications Decency Act Debate:
A Critique of Jeffersonian Free Speech

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Blind Spots of the Communications Decency Act Debate:
A Critique of Jeffersonian Electronic Free Speech

The Telecommunications Act of 1996 is of extreme importance in shaping and legitimizing the social, political, economic, and cultural uses of new technologies. Apart from relevant policy-making issues, only one aspect of the Telecommunications Act--the free speech issue of the Communications Decency Act (CDA)--has drawn much attention from the public and the press. The so-called cyber civil liberties groups--such as the CPSR, EFF, EPIC, and CDT[1]--emerged as the main actors of the anti-CDA activities. Along with the rapid expansion of ordinary people's access to computer networks and through the anti-CDA protests, these groups have gained recognition as new forms of citizen (or social) movements.

Based on traditional First Amendment philosophy from Jefferson's liberal free speech doctrine, cyber civil liberties groups regarded the CDA as a serious governmental threat to free speech. They were convinced that full First Amendment protection accorded to the Internet could realize the ideal of a free and diverse marketplace of ideas. Despite their calls for free speech on the Internet, however, the anti-CDA groups have been subjected to serious criticism. The critics argued that the free speech movement groups only paid attention to government censorship, ignoring pervasive market-based constraints on free speech and public interests.

This study's primary purpose is to identify blind spots of the CDA debate and to examine political philosophies of CDA activist groups as factors causing those blind spots within the context of the Telecommunications Act of 1996. In this context, blind spots refer to what I regard as anti-CDA groups' missing points in the CDA debate. These missing points relate to the conflict between free speech and public interest issues as the charges of the critics of the CDA debate implied. The importance of the identification of these blind spots is primarily relevant to the understanding of politics of the telecommunications public interest policy debate.

The CDA debate was propelled from the last stage of an intensely hot policy-making debate to shape the National Information Infrastructure (NII) and the Telecommunications Act of 1996. The principal conflict between the government, telecommunication industries, and citizen groups was the degree of government involvement in the NII project. The industries attempted to eliminate public interest safeguards on the Act. In this sense, it is pivotal to reveal what political philosophies of the CDA free speech groups created the blind spots and how those blind spots affected public interest policy-making.

This study examines activities of the ACLU (American Civil Liberties Union), CPSR (Computer Professionals for Social Responsibilities), and EFF (Electronic Frontier Foundation) in relation to the CDA protest and telecommunications policy-making.[2] In this study, I will first examine two different interpretations of the First Amendment in terms of political ideology and regulatory ideas. Second, I will locate the CDA within the context of telecommunication legislative activities and policy-making in order to scrutinize how and when the CDA was created and how it turned into the topic of a most heated dispute among related policy issues. Third, I will investigate the main concerns and political philosophy of CDA free speech activism. The investigation will reveal the main political-philosophical differences between CDA debaters (mainly anti-CDA activist groups) and their critics. Finally, I will explore different policies proposed by the CDA activist groups to ensure public interest provisions in the Telecommunications Act of 1996, and how these policy models suggested different market regulations and governmental roles for universal service (access). I will only focus on universal access issues in terms of how and who could protect and secure equal access to the Internet in relation to the different political philosophies of the anti-CDA groups.

Through the analysis comparing different political philosophies between CDA activist groups and their critics, and within the CDA activist groups, I will argue that the free speech issue is tightly intertwined with the issue of media ownership hegemony. Then, under the presupposition of market censorship and market failure, I argue for government's role to preserve free speech and public interests from the increasing power of media corporations. These corporations, in my estimation, have abandoned their traditional democratic role of enlightening the public, undermining the liberal free press theory.

The CDA came into being as Title V of the Telecommunications Act of 1996, which sweepingly reformed the Communications Act of 1934. The CDA amendment proposed by Senator James Exon (D. Nebraska) was originally intended to restrict sexually explicit materials on the Internet to protect children. Thus, the CDA debate first started with the antagonism between free speech advocates and child-welfare advocates proposing to regulate pornography on the Internet. Against this action, civil liberty groups--along with a wide range of social movement groups--created the CDA anticensorship campaign, and filed a lawsuit challenging the CDA. To free speech advocates, the CDA lawsuit represented a strong protest against government censorship, which has generally been regarded as the greatest threat to free speech as guaranteed by the First Amendment.

The conflicts between CDA activist groups and their critics evoke two long-standing debates. First, the conflict between individual liberty and equality (which enables individuals to exercise their legally guaranteed political rights) has been the main argument in democratic theories reflecting the two extremes of the ideological spectrum. Second, there has been a classic conflict between two free speech traditions in the United States--the marketplace concept and the democratic (communitarian or collective) concept--over corporate speech and interpretations of the First Amendment (Sunstein 1993; 1997a: 15-16).

The conflict between liberty and equality has also appeared in the tension between democracy and capitalism, or in the tension between the state and the market. In his 1977 book, *Politics and Markets*, Charles Edward Lindblom revealed this complex relationship between politics and economic power: in a contemporary capitalist-democratic society, unlike classic democratic theory, politics is not an autonomous sphere, but is formed and controlled by the dominant economic interests which are supposed to be regulated by politics (Fiss, 1996: 10).[3]

The First Amendment plays an important role in structuring the relationship between political and economic power (10) because an economy (or a market) is also a legal construct (Sunstein, 1997b: 5). In that respect, the above two long-standing debates are, in reality, closely linked. A number of free speech cases reflect this relationship. More specifically, since the 1970s and 1980s, the dominant free speech tradition, which has been reduced to individual liberty and minimal governmental intrusion, has been faced with new controversial issues. Those issues--such as regulating the press in terms of enhancing diverse public viewpoints, state-subsidized speech activities of public schools and libraries, and limitations of political campaign expenditures--challenged the traditional interpretation of the relationship between government and free speech (Fiss, 1996: 2-3). Liberals uniformly confronted with government interference have been deeply divided into two distinctive stances regarding the government's role to further free speech values in such issues.

The criticism the CDA debate ignited has again made these long-standing debates a timely topic relevant to free speech and democracy.[4] Thus, an understanding of incompatible ideological positions of different First Amendment theories--as they apply to the relationship of individual liberty and equality--is indispensable in comprehending the core of the civil liberty groups' criticism and protests against the CDA.

First Amendment Theories and the Internet

Regarding the relationship between the First Amendment and media, Horwitz (1991) said that the American judiciary system rests in libertarian and communitarian traditions. The libertarian tradition of the First Amendment holds that governmental intrusion will not allow a free and diverse marketplace of ideas to flourish. The marketplace of ideas concept is grounded in Enlightenment assumptions of individual autonomy and rationality, the search for truth, and the realization of self-fulfillment. Thus, the libertarian tradition is frequently referred to as a marketplace of ideas concept as well as an absolutist interpretation of the First Amendment, which rejects any forms of governmental constraints (21-22).

The other tradition, which Horwitz called "a collective or communitarian model of First Amendment rights," focuses more on the conditions and structure of a free and diverse marketplace of ideas, that is, an access structure. Its aim is to ensure general accessibility to the public sphere under the assumption of market failure (32-36). The presupposition of an imperfect market certainly needs governmental actions or public control to ensure accessibility, which conflicts with the libertarian interpretation.

In fact, this collective or communitarian tradition is derived from the First Amendment theory of democratic governance offered by Alexander Meiklejohn. In *Free Speech and its Relation to Self Government* (1948), Meiklejohn argued that the Constitutional right of free speech was devised to aid in the process of self government on public issues: the First Amendment's primary purpose is "to give to every voting member of the body politic the fullest possible participation in the understanding of those problems with [which] the citizens of a self-governing society must deal" (1948; 1972: 88). According to Meiklejohn's theory, freedom of expression exists to ensure democratic, egalitarian participation in unhampered public debate by informed citizens.

In this democratic free speech tradition, Sunstein (1993), in *Democracy and the Problem of Free Speech,* presented a "communitarian" concept of free speech. For Sunstein, the First Amendment is part of a political system for a democratic community and should serve to promote "political equality" and "the deliberative functions" of politics. He rejected the absolutist interpretation of the First Amendment, and argued that free speech rights of the media should be balanced against the need to promote democratic values, such as diverse viewpoints in media coverage of public affairs (Tedford, 1996: 396). Further, contemporary First Amendment theorists urge a consideration of social realities, e.g., that the economically powerful dominate public discourse, and conceal the truth of the powerless in a capitalist society. Accordingly, Owen Fiss (1986) voiced skepticism about the traditional interpretation of the First Amendment, which regards government as the most threatening enemy of individual free speech rights, and the marketplace as its reliable protector (Steffen, 1995: 53-54).[5]

The above discrepancies illustrate that the libertarian and communitarian interpretations of the First Amendment are profoundly contradictory in terms of political ideology and regulatory ideas. Thus, there remains the question of whether freedom from government censorship and a free market ensure free speech of the Internet, even as media corporations accelerate concentration and commercialization of the Internet. In fact, the questions of who protects free speech, and how, are related to the controversies over the government's role and market regulation of telecommunication policy, especially in the public interests. That controversy sparked a fierce confrontation between telecommunication industries and public interest groups, and between Congress and the Clinton administration. Hence, the antagonism between the CDA free speech advocates and their critics is not simply about a matter of government censorship. To fully understand this sharp opposition between the two camps, the CDA debate must be placed within the context of telecommunication legislative activities and policy-making, and not be considered a separate free speech issue. In doing so, it will be possible to examine how the CDA debate emerged as the most controversial issue, apart from other social, political, cultural, and economic issues surrounding the Telecommunications Act.

Partisan Politics and Telecommunication Industries: Contextualizing the CDA

When the Clinton administration set forth "The National Information Infrastructure [NII]: Agenda for Action" in September 1993, its vision statement stressed two main principles: the NII would be built by private sector investments to promote competition and innovation, and it would empower public interests to benefit all Americans (IITF, 1993). The government emphasized not only the strength of the economy and competitive markets but also the goal of universal service for social and democratic use of new technologies (Sugrue, 1994: 20). Government and industries agreed in principle to create the NII, but disagreed on the government's role in building it (McKnight and Neuman, 1995: 139).

After the announcement of the NII project, Congress aggressively began restructuring the old law to provide new conditions for competition in the markets. Big telecommunication corporations like AT&T, RBOCs (Regional Bell Operating Companies), and media companies accelerated alliances between and among themselves. Industry stakeholders attacked government's incumbent regulations, and sent their representatives to threaten Congress with their refusal to invest in the NII, if legislation failed to give them what they wanted (Drake, 1995: 305-44). With these two strategies, the industries were eager to disseminate their views on the issues which asserted that Federal regulation, including public interest protection, was the biggest obstacle to building the NII. In addition, newspaper and broadcasting companies--major players competing to lay their lanes on the information highway (McChesney, 1996: 104) --carried the stories on the industry side. The principal conflict between the government and telecommunications industries was the degree of government involvement in the project. Resisting government actions, many corporations worked hard on Capitol Hill to weaken and eliminate public interest safeguards (Drake, 1995: 320). Their only goal was to maximize profits through the NII services providing entertainment commodities and home shopping.

Meanwhile, raising radical questions of how the NII should be structured, used, and governed, the TPR (Telecommunication Policy Roundtable), a NII public interest coalition, proposed seven principles from a public interest perspective (TPR, 1993),[6] and promoted them to educate policy makers and constituencies. Newly emerging civil liberty groups actively participated in legislative activities of Congress, which formulated principles to govern and regulate new territories created by new technologies, such as privacy and intellectual property.

In the spring of 1994, the 103rd Congress almost finished crafting a bill codifying "open digital broadband networks" which citizen groups promoted as a prerequisite for universal access and fair market competition. It passed the House and several committees of the Senate. At the very last moment, however, the Exon proposal--which aimed to regulate Internet content to protect children from pornography on the Internet-- was incorporated with the Senate bill. Civil liberty groups started a vehement anticensorship campaign to prevent the amendment from passing Congress.

In September 1994, before the November congressional elections, Senate Republican leader Robert Dole of Kansas presented "a set of 'nonnegotiable demands' on behalf of the Baby Bells" (Miller, 1996: 117). Dole asserted that the Senate bill included major problems in its approach to universal service, its excessive regulation, and other public interest provisions (Drake, 1995: 338). The bill was killed the following day. As soon as the 104th Congress--with its Republican majority--convened, Republican leaders extensively altered the public interest provisions, and introduced new bills pushing the deregulation process even further.[7] In addition, the new House Speaker, Newt Gingrich of Georgia, who believes the market best serves public interests, dominated the NII congressional debate.

Within this political environment, and with Congress pursuing a new policy model in a rush, civil liberty groups immediately pounced on the anticensorship issue introduced as an amendment to the CDA by Senator Exon on February 1, 1995. Coincidentally, Congress rejected a year-long endeavor to secure public interests, and citizen groups shifted all their might from public interest to free speech issues. Finally, the CDA debate started, turning public discourse away from other public interest issues of the NII, and eventually emerged as the most controversial issue. Considering the fact that the political climate favored a new market-oriented policy opposing public interest protection, this study argues that the first blind spot of the CDA debate occurred when public interest issues were displaced by the free speech issue.

The Safeguard of the First Amendment against Government Threat: The CDA Lawsuit and the Rejection of Filtering and Rating Systems

As described above, the CDA was propelled from the last stage of an intensely hot policy-making debate, instantly drew most of their attention of civil activist groups away from other public interest policy issues, and initiated the controversial debate concerning free speech on the Internet. Civil liberty groups countered Exon's CDA proposal with the Blue Ribbon Campaign. An image of a blue ribbon against a black screen was displayed on a wide range of WWW sites, along with criticism of both government censorship and the CDA amendment. Despite the vigorous protest of civil liberty groups, President Clinton signed the Telecommunication Bill into law on February 8, 1996; and on the same day, the ACLU, representing nineteen other organizations, filed a lawsuit.[8]

The ACLU et al. has challenged two provisions of the CDA: knowing transmission and display of "indecent" or "patently offensive" messages to minors. They argued that the definitions of indecency and patent offensiveness were so overbroad and vague that the CDA could have abridged legitimate online discussions between adults. It could even have punished an e-mail conversation between a parent and a child, or the display of classic arts. The CDA was a criminal statute, which could have punished a violator with a jail term of up to two years and a $ 25,000 fine (ACLU Brief, 1997).

Beyond these legal arguments of unconstitutionality over the two provisions, the plaintiff groups' main concern was over the chilling effect that the CDA's vagueness may have had on the First Amendment. The two provisions might have caused severe restrictions on freedom of speech, a fundamental cornerstone of a free and democratic society. The ACLU et al. asserted that the law could also be extensively used to censor literary classics and health information under the guise of protecting children; and that, in light of historical experiences, cultural censorship was not far ahead of political censorship (CPSR, 1996). They were concerned that the law would end up giving rise to political censorship on the Internet.

In fact, through the litigation of the CDA, these civil liberty groups sought to create a new precedent to establish parameters of free speech on the Internet. The ACLU et al. insisted that the Internet be allowed to evolve as an unprecedented medium having innovative potential for democracy and society; and that, therefore, the Internet, like the print media, deserve the highest degree of First Amendment protection (ACLU Brief, 1997).

The Supreme Court agreed with this contention. Justice John Paul Stevens wrote for the Court that the Internet is the most participatory and democratic medium where "anyone can become a town crier with a voice that resonates farther than it could from any soapbox" (The Supreme Court Decision, 1997). The Court made an analogy between the Internet and "dial-a-porn" because both have effective devices (e.g. credit cards and access codes) to prohibit minors' access (The Supreme Court Decision, 1997). This analogy meant that the Court saw the Internet as a totally different medium from broadcasting and cable TV, whose strict regulations could therefore not be applied to the Internet. This is what the civil liberties groups desired.

To summarize, the civil liberty groups' main objectives were to establish a legal basis to preserve free speech on the Internet, and to create a social consensus that ensures the democratic potential of the Internet. Their case against the government resulted in the Court ruling on the CDA's unconstitutionality and, simultaneously, increased the Court's understanding of the Internet's unique interactive capacities. Through their activities using computer networks, the groups have also prompted public discourse about the social use of the Internet as a democratic medium.

As the Supreme Court ruled the unconstitutionality of the CDA, the White House took a new approach--the so-called voluntary ratings and filtering software--to regulate "indecent" material on the Internet. The White House collaborated with certain civil liberty organizations,[9] as well as with filtering software, browser, and online service industries. To fight against this action, the major anti-CDA groups--such as the ACLU, CPSR, EFF, and EPIC-- and other organizations formed the Internet Free Expression Alliance (IFEA) in September 1997. This alliance claimed that content rating and filtering technologies abridge open and vibrant communication on the Internet, and also undermine the Supreme Court decision (IFEA, 1997).

The IFEA groups feared that the filtering software and rating systems might exclude politically or socially dissenting content, as well as sexual or violent content, and that these devices, much like the CDA, would chill free speech on the Internet. They regarded the rating schemes and the use of filtering software as an arbitrary form of censorship, and insisted that parents' supervision of their children be the most prudent regulation.

In concert with the White House's action, Congress created two new laws to regulate Internet content. The "Internet School Filtering Act" mandates libraries or schools receiving universal service federal subsidies to install content filtering systems. The IFEA groups opposed this act as a First Amendment violation. They maintained that mandatory installation of filtering software in libraries and schools takes decision-making away from librarians and teachers--who reflect and impart diverse culture and viewpoints at the community level--and imposes the viewpoint of a filtering software company (IFEA, 1998). Another law, the "Child Online Protection Act" (referred to as CDA II by anticensorship groups), a criminal statute, can punish operators of commercial Web sites who make certain types of graphic sexual material available to minors under seventeen (*New York Times*, Oct. 23, 1998). A coalition of 19 organizations, including the ACLU, EFF, and EPIC, filed a suit within days after this bill's passage. They argue that the law violates the First Amendment because its definition of key terms, such as "commercial," are too broad and ambiguous (EFF Press Release, Oct. 22, 1998). This is an exact duplication of the CDA case, based on the same logic as the anti-CDA free speech doctrine.

Political Philosophy of CDA Anticensorship Groups: Jeffersonian Free Speech Theory

Throughout the debate over the CDA and other Internet content regulations, civil liberty groups have consistently displayed two interwoven philosophical principles. The first is individualism. They have advocated the individual's rights to use the Internet however he or she chooses, and to responsibly supervise one's children, rather than legal regulation and social enforcement. These rights parallel the individual's liberty to express and exchange opinions and information freely. Second, to protect these individual rights and liberties, civil liberties groups reject any form of government censorship or prior restraints of Internet content, including filtering software and voluntary rating.

The ACLU, the leading plaintiff in the CDA lawsuit, best speaks for the principal First Amendment philosophy of these civil liberty groups.[10] An advocate of the Bill of Rights since 1920 (Walker, 1990), the ACLU is firmly grounded in Thomas Jefferson's tenet: "A bill of rights is what the people are entitled to against every government on earth, general or particular, and what no just government should refuse" (ACLU, 1997a). The ACLU affirms that the nation's founders conceived of free speech rights to protect individual rights--"the oldest and most traditional of American values"--from government interference (1997a).[11]

Underlying the civil liberty groups' philosophical stances, activities and documents relative to free speech and the Internet, are Jefferson's assumptions about the relationship between a democracy and a press. Jefferson viewed individual liberty as the cornerstone of democracy, and saw government only as the protector of individual life, liberty, and property. Citizens had an inherent right to control their government (Jenson, 1976: 53-54).

Most importantly, Jeffersonian doctrine included freedom of the press to check Government, as well as the notion of enlightened civic virtue against the dangers engendered by party strife and corruption (Smith, 1990: 4, 11). A free press was a reliable safeguard to preserve a free people's liberties (Smith, 1988: 48), because liberty meant freedom from government interference. Along with other leaders of America's revolutionary Enlightenment, Jefferson believed that people had to be informed to govern themselves (44-46). The role of a free press is to enlighten the public, to improve political awareness in civic affairs, and to raise the quality of individual life and thought (Smith, 1988: 49, 1990: 104-5). For Jefferson, the press was an institution for popular education and an integral part of the democratic system.

In fact, Jefferson's philosophical doctrine of free press is a reaffirmation of John Milton's concept of free press and free expression, and the "self-righting process," which was developed in the *Areopagitica* (1644) along with the rise of classic liberalism. Jefferson adopted the classical liberal doctrine of freedom of the press for nineteenth-century America. The main points of the Miltonian self-righting principle are that ordinary citizens desire to know the truth and to seek it in free and open marketplaces, and are then guided by that truth. The marketplace of ideas--in which ideas and opinions meet and compete freely--speeds the search for the truth, and the search concludes with the triumph of truth over falsehood (Altschull, 1990: 39-40, Jenson, 1976: 49).[12]

Modifying the Miltonian views, Jefferson suggested that even though conflicts occur between truth and falsehood, it is important to avoid censoring various viewpoints if truth is to have a better chance of combating falsehood. Thus, Jefferson emphasized the importance of ensuring "free argument and debate" (Altschull, 1990: 117-18). Since the eighteenth century, the proposition of a marketplace of ideas has justified libertarian press ideology (Smith, 1988: 42). Its tradition was resurrected by Justice Oliver Wendell Holmes's "free trade in ideas." He wrote in his dissent in *Abrams v. United States* (1919) that "the best test of truth is the power of the thought to get itself accepted in the competition of the market..."[13]

Thus, the marketplace of ideas necessarily requires a press which is free from prior restraint and publication censorship. As Jefferson's self-righting principle suggested, individuals can discover the truth or better versions of it through open and unfettered debate in a marketplace free from government intervention. This is exactly why the CDA activist groups argued against the CDA and against filtering and rating Internet content.

Besides these political and self-fulfillment roles of the press, the liberal theory of free press regards making profit-making as another main function of the press. Based on laissez-faire economics, the liberal theory holds that only a free press in a private enterprise system can accomplish the missions of enlightening the public, safeguarding civil liberties, and serving the political system (Jenson, 1976: 65). It assumes that anyone with capital can start a communications business whose success or failure depends on its ability to make profits by satisfying customers, and that competition provides multiple voices and diverse views. Private business thereby serves consumers and/or the public. Sales and advertising are important sources of economic independence for a free marketplace of ideas (Siebert, 1956: 51-53). Stanton McCandlish (1998), program director of the EFF, elucidated EFF's interpretation of Jeffersonian doctrine in detail: The organization focuses principally on the government threats, based on the assumption that "the First Amendment to the Constitution is only a protection against government, not private-sector parties like corporation or citizens" (e-mail interview).

CDA activist groups use another theoretical foundation for free speech is a system of freedom of expression, as expressed by Thomas Emerson (1970): "the limitations imposed on discussion . . . tend readily and quickly to destroy the whole structure of free expression" (11).

Thus, Internet free speech advocates commonly argue that allowing the government to censor someone else enables the government to censor you. Their fundamental stance is that every individual has a right to decide what he or she sees or hears (ACLU, 1997b).

In conclusion, the CDA activist groups believe that the interactive nature of the Internet, coupled with full First Amendment protection, can realize the ideal of an electronic marketplace of ideas. Utilizing the various communication methods on the Internet, individuals can state, publish, or disseminate their own ideas and any legal information, not just as customers of entertainment commodities and passive receivers of one-way mass media, but as citizens. These groups believe that the development of new communications networks should further expand the marketplace of ideas through diverse and competitive content services in the market. The CDA activist groups thus expose the misconception that the nature of telecommunication technologies and quantitative expansion of those technologies, would automatically promote individuals' meaningful participation in an electronic marketplace where private enterprises and advanced technologies provide diverse ideas.

Markets Infringing upon Free Speech and Public Interests: A Critique of the CDA Activist Groups

The dominance of the free speech absolutism in the CDA debate led to criticism. One commentator called it "the laissez-faire utopianism of many of Exon's critics," (Shapiro, 1995: 10). Others warned against "blanket adoption of the First Amendment" without a proper critique of the market infringing upon public interests (McChesney, 1996: 107-8). That is because the online free speech movement groups did not pay attention to the connection between media ownership, privatization of the Internet, and the expected negative impact on free speech over the Internet.

Looked at together, these criticisms indicate another blind spot of the CDA debate. As previously discussed, the first blind spot occurred when the public interest issues were displaced by the free speech issues, which focused only on the CDA. During the last stage of enacting the

Telecommunications Act, Congress tabled public interest provisions. The second blind spot of the CDA debate is the disregard of threats to diverse public discourse from the free market.

This criticism of the CDA debate is based on the communitarian (or democratic) concept of free speech, which focuses more on accessibility to a marketplace of ideas under the assumption of market failure. An imperfect market certainly needs governmental actions or public control to ensure accessibility. This presupposition of market failure by the CDA critics dates back more than fifty years ago to the indications of the Commission on Freedom of the Press (the Hutchins Commission), which warned that increasingly concentrated media ownership and excessively strong private power endangered the free flow of ideas. This warning was derived from the affirmative theory of the press--freedom "for" social responsibility serving the public need, as well as negative freedom "from" any governmental, social, external, or internal compulsion (80). Even though it basically supported the liberal concept of self-regulation of the press, the Commission suggested positive governmental actions and public controls to promote circulation of diverse ideas to counter private media powers (79-90, 96-106).

Since the passage of the 1996 Telecommunications Act, big corporations and media industries have accelerated conglomeration and concentration. This trend validates many scholars' skepticism about the effectiveness of a liberal, free market structure for media, especially in relation to the media's democratic political role. Concentration of media ownership and commercialization have created private censorship as restrictive as government censorship. Media conglomerates define "the nature and type of information" which will be the basis for social and political decision making (Hardt, 1998). The media's market mechanisms, such as advertising and ratings, homogenize media content to produce maximum profits (Herman, 1991; Keane, 1991). Media enterprises have refrained from critically investigating the activities of the giant conglomerates to which they belong (Curran, 1996: 86; Bagdikian, 1997: 30). This market constraint operates so naturally, without any explicit censorship, that it easily escapes political and social dissent and hides behind the rights to pursue private profits (Herman, 1991: 48).

Transformation of media ownership also changed the media's conventional role as a watchdog of government on behalf of the public. To promote their economic interests, media conglomerates actively support a conservative government, and become blind to the corruption in government in order to protect their political allies (Curran, 1996: 86-90; Bagdikian, 1997: x).

Media conglomerates have attempted to avoid social responsibility under the umbrella of First Amendment protection, as a legal "person" (Schiller, 1989: 51-52). With this First Amendment protection, media corporations have sought to reduce public services: for instance, cable industries challenged the public access channel requirement imposed by municipal cities. They argued that the requirement violates their free speech rights to choose what contents they air (Schiller, 1989: 56-57, Horwitz, 1991: 58-61).

The preceding discussion shows that media do not provide diverse ideas, and no longer play their traditional watchdog role in checking government and educating citizens about democracy, as the Jeffersonian free speech doctrine suggests they should. Even though the Internet has enormous democratic potential for public dialogue, its potential is already being commercialized by monopoly capital (Dawson and Foster 1998; Baran, 1998). Contemporary First Amendment theorists caution that, in capitalist social realities, commercialized and monopolized media cannot guarantee the free speech of ordinary people. Thus, with growing concerns about what concentrated media ownership implies for democracy, the necessity of media reform is increasing (*Boston Review,* Summer 1998).

The Democratic Concept of the First Amendment Ensuring Universal Service

As Sunstein (1993) argued, the First Amendment, as part of our political system, should serve to promote "political equality" for a democratic community. This study illustrates that the free speech issue is closely linked to the universal service issue in the context of the telecommunication policy-making debate. In fact, the clash between CDA activist groups and their critics, due to different political philosophies, had already occurred during the 1993-1995 NII debate. Of the CDA activist groups, the CPSR and EFF were the most active in telecommunication policy-making, and proposed conflicting public interest policies. The CPSR worked in solid collaboration with the TPR, while the EFF proposed its own public interest policy model based on a different political philosophy.

The concept of universal service has evolved from ideas about telephone networks, according to a provision of the Communications Act of 1934. As the nation's traditional communication policy--"universal service at reasonable costs"--provides people in rural areas with access to communication, and has led to the creation of a public broadcasting system (Dordick, 1995: 158).

Concerning universal service, the CPSR and TPR, and the EFF generally agreed with the basic principles that the NII must provide widespread access at an affordable cost, and that it must serve the public interest. Despite this general consensus, however, the issues of how to define the concept of universal services, how to determine its boundaries, and how to realize its potential sharply divided the public interest groups into two camps: supporters of the government's responsibility for ensuring the public interest, on one hand; and strong free market advocates with no government interference, on the other.

As stated earlier, the TPR proposed seven principles to realize the public interest goal of the NII. Embracing these principles, the CPSR detailed its policy and recommended its technical design in its position paper entitled "Serving the Community: A Public Interest Vision of the National Information Infrastructure" (CPSR, 1993). Following is a discussion of three of this paper's main points.

Warning that the increasing gulf between the information affluent and the information poor endangers society, the CPSR and TPR defined universal service in terms of equality: equal access for participation of informed citizens in public discussion, and equal access for opportunities of lifelong learning and job training to improve one's economic status. Grounded in this concept of actual equal access, the CPSR and TPR demanded that the government secure public services through a combination of legislation, regulation, taxation, and direct subsidies.

Second, to realize a diverse marketplace of ideas, these groups called for government intervention to make the "content market" fair and open. The point is that when telecommunication and cable companies are permitted to own both carrier and content, cable carriers will prefer their own content, and will eventually have the power to choose programs from hundreds of content providers. This has already occurred in the current content market because carriers pursuing maximized profits are indifferent to providing diverse content. For these reasons, the CPSR has serious concerns about carriers' ability to censor and control content on the NII. These concerns are above and beyond concerns about traditional forms of governmental censorship, as observed in the CDA debate.

Third, the CPSR and TPR not only called for required public services on commercial media but also called for a dedicated civic spectrum on the NII for public use. A vital civic sector means publicly owned bandwidth on the NII, funded by "surcharges or profits for information providers, royalty fees for the use of publicly collected data, profits for carriers, or tax abatement to donators of public space" (CPSR, 1993).

These CPSR and TPR public interest principles of universal access (or universal service) emphasize distribution of electronic resources to actually enable equal access. Their regulatory idea depended on public regulation and government action rather than a laissez-faire market. The request for government intervention to promote content diversity recalls the affirmative interpretation of freedom of the press put forth by collective theorists of the First Amendment and the Hutchins

Commission.

The EFF had an entirely different position regarding market policy and government roles. During the Telecommunications Act reform debate, the EFF frequently testified before Congress, the FCC, and other committees. The EFF, which once joined the TPR, independently offered its "Open Platform" vision[14] for telecommunications market development and public interests.

The Open Platform model rested on two principles of "common carriage" and "open network standards." In terms of technological design and content regulation, it required an extension of existing common carrier policies: exemption from the responsibility for the content that common carriers carry, according to convergence of media and national network standards of interoperability. As Kapor testified, "Key points in these networks are kept open and accessible to independent content providers, third-party equipment manufacturers, and competing carriers" (Kapor, Testimony for HR 3636, 1994). Interoperability standards allow telecommunications and media firms access to any other network's internal capabilities.

Because deregulation alone does not automatically lead to healthy competition, this open standard principle was essential to enable small businesses to compete with big conglomerates in a truly free market According to the EFF, such competition will quicken technological innovation, and will best enable consumers to freely and inexpensively choose any telecommunication services, network providers, or entertainment. For example, consumers can buy cable programming, a set-top box,[15] and other services separately, from whichever companies offer the best service at the best price. To do this, a cable company has to offer an interface from its cables to other companies' set-top boxes with the same price and performance as that offered for its own box (Browing, 1994).

The concept of pursuing universal service through competition exemplifies the EFF's belief in the free market mechanism and technological innovation. From this point of view, the market's current failure is due to its policy of competition, not to the market itself, just as argued by critics of the CDA activist groups. Surely, the EFF does not agree that competition and markets are a threat to the public interest. As liberal free press doctrine argued that subsidy of media would threaten the autonomy of private media corporations (Jenson: 1976: 65), the EFF opposed direct universal subsidy as an old POTS-style (Plain Old Telephone Services) government overregulation (McCandlish, e-mail interview, 1998). Any form of government intervention in the private sector is regarded as an impediment to free competition. This is in direct opposition to the conviction of the CPSR and TPR that "only government action . . .will preserve a public interest component of the NII beyond commercial interests" (CPSR, 1993).

In terms of technological design, both camps--the CPSR and TPR, and the EFF--generally shared their ideas of open and interoperable standards, the common carriage principle, easy-to-use technology, and interactive multimedia for two-way communications. However, the political-economic strategies of the two camps differed greatly. In fact, these differences dominated their visions of the NII.

The Republican majority of the 104th Congress minimized universal service provisions and eliminated interoperability language for the open network standard. The CPSR and TPR denounced the reformed telecommunication laws because they failed to serve public interests and left deregulated markets (CPSR statement, Nov. 6, 1995). The EFF acknowledged the failure of its Open Platform model, admitting that the Act has increased oligopoly in markets, including major mergers involving Baby Bells (McCandlish, e-mail interview, 1998).

Previously identified as the first blind spot of the CDA debate, the universal service issue framing the NII public policy debate was instantaneously changed into a free speech issue, with the incorporation of the CDA proposal into the Telecommunications Act of 1996. Decrying government censorship of the Internet, civil liberties groups shifted their attention to the CDA: The EFF launched the Blue Ribbon Anticensorship Campaign; the CPSR actively joined the CDA lawsuit; and they all fought against the threat from government censorship.

Conclusion

This study aimed to identify blind spots of the CDA debate and political philosophies of CDA activist groups by examining the conflict between free speech and public interest issues focusing on universal service. The main concerns of the CDA activist groups were to establish a legal basis for full First Amendment protection of the Internet, and to promote public consensus of the Internet's democratic potential. However, this study revealed that despite contributions to free speech on the Internet, the CDA debate consequently distracted the direction of and undermined practices of public interest policy movements in the NII debate. This undermining occurred to extent that the free speech issue of the CDA debate displaced public interest issues in the very last policy-making stage complicated by partisan politics; and it disregarded the threats from the free market to diverse public discourse. These I identified as blind spots in the CDA debate in the pursuit of public interest policy.

The controversy resulting from dissimilar interpretations of the roles of state, market, and civil society reflected the differing political philosophies of two sides--the CDA activist groups, and their critics. The same kind of ideological conflict had occurred between citizen activist groups--the CPSR and TPR, and the EFF--during the NII debate. The sharp opposition surrounding definitions, boundaries, and funding of universal services, was a product of long-standing tension between respective advocates of liberty and of equality. Two main points emerged from the findings.

First, the opposition between the CPSR and TPR, and the EFF reflected the classical conflicts between the democratic (or communitarian) and the marketplace (or absolute) concepts of free speech. Based on the democratic concept of free speech and the affirmative theory of a free press, the CPSR and TPR considered market censorship to be as threatening as government censorship. Referring to the current content market controlled by cable television carriers, the CPSR and TPR requested government intervention to prevent probable market censorship of the NII. However, the EFF, which promoted the idea of Jeffersonian electronic free press based on absolutist free speech tradition, did not consider the market as a threat to free speech at all. Market competition, the EFF asserted, is the best way to promote First Amendment rights, while government interference is the only threat to free speech.

Second, in the communitarian (democratic) tradition of free speech, social equality which enables citizens to participate freely in political discussions is as equally important as the individual's free speech rights. On this principle, the CPSR and TPR called for the government to secure public interests since the market alone cannot provide both diverse ideas and affordable, equitable access. In contrast, the EFF limited the government's role to coordinating technological standards, investing in research and development, and other long-term matters. The EFF believed only a true competitive market could offer universal access with cheap prices and diverse services. In sum, the citizen activist groups held profoundly different visions of and strategies for free speech and universal access, although they held the same view that universal service, as well as free speech, is essential in democratizing new technologies.

This study concludes that unfortunately, the current market environment is not likely to allow us to realize the democratic potential of the Internet --equal access and diverse and free speech. Universal service must be supported by public interest policies and government action must reduce the increasing gap between the rich and the poor. As a prerequisite to democratic society, the service has to offer equitable access as well as training in the skills needed to use the technology. Even though technological development[16] and market competition eventually reduce prices and provide easy access to equipment, they cannot be automatically guaranteed in the near future. Without developing public interest policies and regulatory framework, the current market structure will impede expansion of universal service to everyone.

Also, the small court victory of the CDA against the government is not enough to ensure free speech on the Internet. Free speech absolutism based on free market principles cannot by itself ensure speech on the Internet and realize the democratic nature of the Internet as a "unique and wholly different medium of worldwide human communications" (ACLU Brief, 1997). To preserve free speech on the Internet, watchful opposition must continue not only against government censorship, but also against a market with the power to commercialize and alter the democratic structure of the Internet. Deregulated markets alone cannot guarantee free speech or a public sphere for deliberative debates.

Endnotes

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[1] Since the establishment of CPSR (Computer Professionals for Social Responsibility) in 1983, the EFF (Electronic Frontier Foundation), the EPIC (Electronic Privacy Information Center), and the CDT (Center for Democracy and Technology) were founded in 1991, 1994, and 1995, respectively. These groups have accelerated their activities ever since in the area of civil liberty issues (e.g. civil rights and privacy, free speech rights, and intellectual property) and became main actors of the CDA free speech movement as a whole.

[2] Among majors actors of the CDA free speech movement, I examine these three organizations. In early 1996, the ACLU launched its Web site, "ACLU Freedom Network" and filed the CDA suit. With these actions, the ACLU radically marked its initial step as a cyber civil liberties group. This study is based primarily on an analysis of position and conference papers and other statements of activist groups. Electronic resources and online newsletters, like *CPSR News* and *Effector*, were particularly useful in tracing these organizations' activities, issues, and major actors. For an accurate analysis, and to avoid missing any important points, this study conducted open-ended e-mail interviews with the Chair of the CPSR, Marsha Woodbury, and the EFF program director, Stanton McCandlish. Their comprehensive responses were enough to represent their organizations, and were useful for cross-checking activities and documents of organizations. Samuel Walker's *In Defense of American Liberties: A History of the ACLU* (1990) helps in understanding the political philosophy of the ACLU.

[3] In liberal democracy, the role of a democratic constitutional state is to aggregate individual interests and to protect their rights from the arbitrary use of political power. In this light, the state is required to mediate conflict, intervene in redistribution of resources as an entity to do the best for public interest, according to the rule of economic competition (Held, 1993: 18-20). Thus, Held emphasized the need a distinction between classical liberalism and an existing liberal democracy model. He pointed out that supporters of liberal democracy neglected the role of state as intended in the classical liberalism, thereby, draw attention away from social inequality caused by the gulf between formal rights and actual rights (24).

[4] *The Nation* published a special issue on July 21, 1997, soon after the Supreme Court Decision on the CDA lawsuit. It did not directly address the CDA case, but did raise the fundamental questions of how liberals and progressives should deal with increasingly empowering corporate and commercial speech in terms of relationships between free speech, equality, capitalism and democracy.

[5] Far more radical, postmodernist First Amendment approaches against the modernist liberal interpretation argue that political and social equality should be the most primary Constitutional value, not civil liberties (Steffen, 44).

[6] In October 1993, more than sixty public interest organizations, including the ACLU, CPSR, and EFF, launched the TPR, a Washington-based coalition focusing on the NII. "Its goal is to ensure that public concerns and needs are not submerged in the rush to exploit new information technologies for entertainment and merchandizing purposes and to democratize telecommunications"(CPSR Annual Report, 1995). Its seven principles are universal access, freedom to communicate, a vital civic sector, diverse and competitive markets, an equitable work place, privacy, and democratic policy making.

[7] "On February 7, 1995, 47 public interest organizations wrote a letter to the heads of the House Commerce Committee and Subcommittee in Telecommunications and Finance protesting the closed door meeting and asking that their views be heard" (Drake, 1995: 422, note 73).

[8] A few weeks later, the ALA (American Library Association), representing twenty-seven plaintiffs and users, filed a similar suit. The two cases were soon consolidated in the Eastern District of Pennsylvania

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(alias, the Philadelphia court). After the Philadelphia court ruled on the unconstitutionality of the CDA, the case moved directly into the U.S. Supreme Court by the government's appeal. On June 21, 1997, the Supreme Court held that the CDA was unconstitutional. The ACLU represented nonprofit advocates of civil, human, gay and lesbian, and free speech rights. The ALA represented libraries, book publishers, computer and software industries, commercial online service providers, journalism groups, and nonprofit groups and users.

[9] The CIEC was one of the most active participants of the CDA lawsuit filed by the ALA groups (See note 8), and CDA anticensorship campaign. The CDT (See note 1) was a main actor of this coalition, which consists of Association of American University Presses, Inc., Association of National Advertisers, Association Research Libraries, National Newspaper Association, Voters Telecommunications Watch as well as computer industries, such as Microsystems Software, Inc., and Surfwatch Software, Inc.

[10] In this review, this study focus on only the ACLU and EFF; the CPSR is not included. The CPSR has a different position from the ACLU and EFF's, although the organization actively joined the free speech movement and its activities include civil liberties. And its membership is "very divided politically" (Marsha Woodbury, e-mail interview, 1998).

[11] Lippman (1922) declared that it was "farming communities of Massachusetts and Virginia" which gave power to Jefferson's party. In Jeffersonian democracy, the people who created self-government were independent, small land-owning farmers (170). When Jefferson formulated the American image of democracy, American society, was far different from contemporary mass society. Another of Lippman's noteworthy points is that the Constitution is incompatible with democracy, but Jefferson "taught the American people to read the Constitution as an expression of democracy" and "stereotyped the images, the ideas, and even many of the phrases..." (178-79).

[12] Against increasing attack on the search for truth rationale, William P. Marshall (1995) argued that the value of the search for truth is in "the existential value of the search itself" rather than "the actual finding of truth" (4). Thus, he suggested that in the search for truth theory, "the individual has the ability to freely choose her ideas and beliefs" in terms that "what is valuable in human conduct is more than only the political." He claimed that the understanding of the First Amendment has to be above the interpretation of free speech in order to promote self-governance, autonomy and self-realization, and individual liberty free from government intrusion (38-39).

[13] Quoted from Hindman (1992: 48).

[14] As mentioned in the beginning of this study, "Open Platform" was once turned into policy in the Markey-Fields Bill (HR 3636) of the 103rd Congress (*Effector*, July 22, 1994). It passed the House of Representative in July 1994, but was tabled in the Senate.

[15] Software in a set-top box is a computer device that runs the consumer software in future video-dial tone and enhanced cable TV systems.

[16] This study did not address much about EFF's technological determinist perspective. However, its technological perspective has profoundly affected its public interest principles in conjunction with its Jeffersonian free speech absolutism based on free market principles.

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ACLU (American Civil Liberties Union) [http:// www.aclu.org]
CPSR (Computer Professionals for Social Responsibility) [http:// www.cpsr.org]
EFF (Electronic Frontier Foundation) [http:// www.eff.org]
EPIC (Electronic Privacy Information Center) [http:// www.epic.org]
CDT (Center for Democracy and Technology) [http:// www.cdt.org]
IFEA (Internet Free Expression Alliance) [http:// www.ifea.net]

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Telecommunications for Rural Community Development:

The Effects of Community Projects on Attitudes and Adoption Among Community Members

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Telecommunications for Rural Community Development:
The Effects of Community Projects
on Attitudes and Adoption Among Community Members

Abstract

In the mid-1990s, rural communities began investing in local telecommunications development projects. This study examines the effects of two of those projects on residents' attitudes towards, and adoption of, new technologies as compared to residents of control communities.

Results show the projects have had some effects. However, differences in adoption were not significant, raising questions about whether investments in such projects are justified. Residents of project communities did, however, have significantly more positive attitudes towards new technologies.

Telecommunications for Rural Community Development

In the early 1990s, the Internet's emergence as a publicly accessible interactive communication channel sparked widespread awareness of new communication technologies' potential to empower. The enormous excitement about the Internet generated rhetorical flourishes about this new communication channel's potential to transform our notions of community, democracy and society (Gore,1994).

But among government and community leaders, the real power new communication technologies were expected to provide was economic, not social (Hollifield and McCain, 1995). Analysis of stakeholder position papers and other internal government documents showed that the Clinton Administration's interest in communication infrastructure and policy was driven by two central economic concerns. The first was the ability of U.S. telecommunications companies -- which are responsible for a significant volume of U.S. exports -- to remain competitive in the increasingly crowded global technology market (Hollifield, 1994). The Administration's second — and more central — concern was the importance of information infrastructure to the ability of U.S. businesses in all industry sectors to remain competitive in the global market (Hollifield and McCain, 1995). In the information economy of the late 20th century, the ability to instantly access or transmit information provides crucial competitive advantage.

So critical to U.S. information and communication policy were the economic implications of the new technologies that by the mid-1990s, U.S. international communication policy was shifting away from a focus on supporting individual free speech in foreign nations and towards a focus on ensuring that other nations wouldn't prevent U.S. corporations from accessing and transmitting business information across borders (Hollifield and Samarajiva, 1994). And by 1996, domestic communication policy was being based on a vision that equated the public's interest in the telecommunications industry with that industry's economic efficiency, rather than with social equity (Aufderheide, 1999, p. 27).

But the awareness of the importance of new telecommunications technologies to economic competitiveness and viability was by no means limited to the federal government. State and local governments in the U.S. became increasingly concerned in the mid-1990s with developing regional and local telecommunications infrastructure to prevent communities from being cut off from the information economy. Rural community leaders, in particular, recognized that their future ability to sustain the local economy was likely to rest on their ability to provide industry with the communication infrastructure that could overcome the time and distance disadvantages of rurality. Some rural visionaries even saw an opportunity to attract new residents who wanted to live in rural peace and were able to conduct their business via communication networks.

However, in the era of deregulation, providing that critical telecommunications infrastructure proved an increasingly complex task. Although universal phone service had been a central tenet of U.S. communication policy for most of the last century, as the public interest in telecommunications was redefined as service providers' economic efficiency (Aufderheide, 1999), policymakers proved reluctant to extend the universal service principle to include the new technologies upon which business and industry were becoming so dependent. And for service providers, distance and population density issues made it questionable whether new technology services could be profitably provided to rural areas.

To address these problems, a number of rural communities around the U.S. launched telecommunications development initiatives. These projects generally occurred in complete isolation from one another because of a lack of a forum through which community leaders could share information. As a result, a number of different models for rural telecommunications development projects emerged.

In February 1997, U.S. telecommunications scholars, service providers and rural community leaders met in a national conference to examine some of these local development initiatives. One of the critical findings that emerged from the conference was that rural communities were investing in telecommunications projects with an almost complete absence of information about the effects of such development on rural economies. Additionally, project leaders universally reported an absence of any evaluation effort of their projects that might have demonstrated whether their communities were getting a return on their investments in the form of either economic benefits or increased adoption rates among local businesses and residents.

Telecommunications for Rural Community Development

This study is part of a larger research program developed to address those questions. Specifically, this study asks how effective rural community telecommunications development initiatives are in encouraging area businesses and residents to adopt and use new technologies. Clearly, encouraging adoption and use of such technologies in the local community is necessary if the actual development of the local telecommunications infrastructure is to have any long-term impact on the local economy or quality of life.

Literature Review

The lack of information reported by rural project leaders reflects the limited research available on the economic and social effects of communication infrastructure development. Although there is a large literature on rural telecommunications development, most of it has been done in developing countries where the underlying economic and infrastructure conditions are significantly different from those in rural areas of the U.S. Additionally, most of it has been done using case study, as opposed to comparative methods (Wolford and Hollifield, 1997). Moreover, because of their recent emergence, few of the existing studies focus on the effects of industry and public access to computer-based interactive information technologies.

The effects of telecommunications on economic development has been, however, the focus of most of the research on rural telecommunications investment that has been done in the U.S., regardless of the research methodology used (Dholakia and Harlam, 1994; Steinnes, 1990; Nazem and Liu, 1992; Strover and Williams, 1991; Hansen, Cleevely, Wadsworth, Bailey and Bakewell, 1990; Hudson and Parker, 1990; LaRose and Mettler, 1989; Davidson and Dibble, 1991; Cronin, Colleran, Herbert and Lewitzky, 1993; Cronin, Parker, Colleran and Gold, 1993a; Cronin, Parker, Colleran and Gold, 1991; and Schmandt, Williams, Wilson and Strover, 1991). Many of the studies concluded that telecommunications investment contributes to economic growth (Cronin et al, 1991, 1993, 1993a,1994;1995; Dholakia and Harlam, 1994; Hudson and Parker, 1990; Parker, et al, 1992; Steinnes, 1990; Williams, 1991).

In comparative research that examined the specific effects of telecommunications investment in rural areas, Cronin et al. (1993) found that increased investment in central office equipment caused a related change in economic activity. Greater relationships between telecommunications investments and economic growth were found four years after the investment than in the prior three years, illustrating the premise that benefits of telecommunications infrastructure investment require time to be realized, particularly in rural communities where the lag between investment and effect was found to be longer than in more urban settings. Changes in investment in modern telecommunications infrastructure also were found to be causally related to three broad categories of U.S. productivity (Cronin et al. 1993b) and to the creation of 5,000 new jobs annually between 1975 and 1991 in Pennsylvania's rural areas (Cronin et al 1995). Cronin et al. (1991, 1993) concluded that investment in infrastructure and economic growth have a two-way relationship -- the presence of each positively effects the other.

Investment in telecommunications and education were found to be more important for economic development than investment in physical infrastructure and energy (Dholakia and Harlam, 1994), while Parker et al. (1992) reported that counties with upgraded telephone lines and switches had better economic performance than counties that did not have the improved infrastructure. In Schmandt et al.' s 1991 series of case studies, telecommunications played a significant role in the development efforts of five of the six communities studied through reducing cost of business operations, playing a role in community planning and providing the opportunity for innovation.

Sell and Jacobs (1994) found that telecommuting provided an opportunity to reduce business costs, retain valuable employees and reduce costs for the employee. This was seen as having the potential to contribute to economic development in rural areas through job creation with residents working for companies located elsewhere.

One commonality that must be noted about the literature on the effects of telecommunications development that has been examined thus far is that virtually all of it has studied telecommunications investment that emerged as the result of natural market demand. Far less is known about the effectiveness of community-based efforts that seek to develop telecommunications infrastructure as the result of apparent market failures. However, scholars seem to agree that sociological factors in rural communities can undermine community development efforts when market demand is not the driving force behind the development effort.

Davidson and Dibble (1991), Sawhney (1992) and Schmandt et al.(1991) all suggested that a visionary local leader must be present if a community is to utilize telecommunications infrastructure for effective economic growth. Donnermeyer et al (1997) argued that stages of community *readiness* influence the likelihood that a rural community development project will be successfully adopted by community members -- that is, that projects must account for the community's prior experience in the area, including varying levels of experience among community members, turfism and vested interests in the subject. Flora (1993), suggested that "entrepreneurial social infrastructure" (ESI) is a necessary ingredient for rural community development, with ESI consisting of three elements: openness of community boundaries, resource mobilization, including local private capital, and the quality of social networks, which includes internal and external community linkages. Similarly, Granovetter (1973) suggested that successful community development hinged on community members' ability to both recognize the need for, and to use, internal and external ties. However, these theories about sociological factors that influence the success of rural community development efforts have not yet been tested in relation to telecommunications development.

Equally little research is available about possible differences in rural and urban business and residential adoption and use of telecommunications technologies. Cronin and Herbert (1994) found that rural households had benefitted less significantly than average households from modern telecommunications services. However, two other studies by Shields et al. (1993) and LaRose and Mettler (1989) found that differences in needs and preferences between rural and urban telecommunications users were determined by factors other than whether they were rural or urban residents. In Blacksburg, Virginia, Patterson and Kavanaugh (1994) found that residents were most interested in telecommunications services that facilitated localism.

Beyond this handful of studies, there is little information available that might suggest factors that influence rural adoption of telecommunications technologies.

Telecommunications for Rural Community Development

Review of this body of research led to the following hypotheses.

Hypotheses

Although little is known about what fosters telecommunications adoption among rural users, sociologists have suggested there has to be a *readiness* factor in place before a rural community development project will be successful. Therefore,

H1: Community members will be more likely in communities that have sponsored telecommunications development projects to believe that new technology will be important to their futures than will community members in communities that have not sponsored such projects.

Research has suggested that telecommunications infrastructure development does have a positive effect on economic growth. Moreover, recent telecommunications policy and rural community telecommunications development initiatives have been based on the belief that telecommunications networks will be necessary for businesses -- and communities -- to remain competitive in the information economy of the 21st century. Therefore:

H2: Respondents in rural communities that have invested in community-based telecommunications infrastructure development will be more likely to report using E-mail in their workplaces than respondents in communities that have not made such investments.

H3: Respondents in rural communities that have invested in community-based telecommunications infrastructure development will be more likely to report using the World Wide Web in their workplaces than respondents in communities that have not made such investments.

Although little is known about possible differences in adoption patterns for new telecommunications technologies between rural and urban uses, rural telecommunications development projects are developed in the belief that if the infrastructure is provided, community members will use it. Therefore:

Telecommunications for Rural Community Development

H4: Respondents of rural communities that have invested in community-based telecommunications infrastructure development will be more likely to have used E-mail at least once than respondents in communities that have not made such investments.

H5: Respondents of rural communities that have invested in community-based telecommunications infrastructure development will be more likely to have used the World Wide Web at least once than respondents in communities that have not made such investments.

If the rural community development projects have been successful, then:

H6: Community members in rural towns where community-based telecommunications infrastructure development projects have been launched will be more likely to say that new technologies already have had a positive impact on their town.

Method

The study used a quasi-experimental design. The study identified two rural communities in two different states that had developed widely publicized, reportedly successful community-based telecommunications development projects that had been under way for more than three years at the time data collection began. For each study community, a control community in the same state was located. The control communities were matched to the study communities on the basis of size and such socioeconomic measures from U.S. census data as poverty and unemployment levels, degree of rurality, age, education and income levels, and ethnic diversity. Socioeconomic measures were used to develop the match because demographic factors are known to be related to the adoption and use of new technologies. Additionally, community size and economic base were also expected to influence both the demand for and availability of communication services.

The match communities also were selected on the basis that they had not had a community-wide telecommunications development project in operation during the period in which the target community's project was under way.

The two study communities will be identified here as "Cornbury" and "Hillsbury." The two respective control communities will be called "Wheatville" and "Lakeville." All four communities are in the Midwest. Both Midwest states in the sample have made some effort at the state level to support rural telecommunications development.

In Spring 1998, the authors visited the four communities to conduct lengthy in-depth interviews with key informants about local telecommunications needs and conditions, sociological conditions and, in the study communities, the details of the local development project.

Cornbury and its control community, Wheatville, wereoth communities of approximately 4,000 citizens. Each was a county seat and each was located about one hour away from the same major metropolitan area. Both had stable agriculture-based economies that included a few major industrial plants, and neither was home to an institution of higher education. One distinguishing factor of note between the two was that Cornbury was the headquarters of a small but highly proactive telephone company that was, in fact, the driving force behind the development of the community-based telecommunications project. Wheatville, in contrast, was served by a telephone company that was headquarted in the nearest city. The phone company pulled its local service office out of Wheatville, and key informants in Wheatville reported their service provider was not aggressive in its attempts to upgrade their telecommunications services. Additionally, Cornbury was located on a major interstate highway, which Wheatville was not.

The community project in Cornbury was launched in 1993. An all-volunteer task force drawn from across the community developed a series of goals that included, among other things, increasing public education, awareness and use of telecommunications technologies, setting up an electronic community bulletin board and E-mail system, constructing community videoconferencing sites with satellite uplinks and downlinks, and improving the level of technology in the schools. By April 1998, all seven of the task force's original goals had been accomplished and the task force was writing new goals.

The other paired communities, Hillsbury and Lakeville, were located in a different state and were larger. Hillsbury had 10,000 people, while Lakeville had 8,000. Both were located about 90 minutes away from the nearest urban area, although not the same urban area. Both had more diversified economies that included a mixture of agriculture, industry, and tourism and recreation. Both also were home to an institution of higher education. Hillsbury housed a branch campus of the state university system, while Lakeville was home to a post-secondary vocational educational institution that included studies in computer science and communications.

There also were differences between the two communities that are important to note. In direct contrast to the first two communities, in this pair, Lakeville – the control community – was home to a rural cooperative telecommunications provider that was aggressively pursuing new markets and moving into new services such as cable and internet connections. Hillsbury, in contrast, was served by an out-of-state provider that local leaders generally described as not progressive. Also in contrast to the two smaller communities in the study, in the larger pair, it was the control community, Lakeville that was located on a major interstate highway, while Hillsbury was not so served.

Hillsbury's community project was developed on the local university branch campus and was led by university faculty and staff. The project was a World Wide Web-based project that focused on providing Web services to Hillsbury and surrounding communities and businesses. The goal of the project was to create a significant Web presence for the region in order to attract new business and tourism to the area. The project also made local community information such as community calendars, city regulations, etc. available on the Web for local residents.

The project, which was launched in 1995 and funded through grants, attracted only lukewarm interest by local businesses and nearby communities. By Spring 1998, the grant money supporting the project had run out and the project was trying to redefine itself. It continued to maintain hundreds of Web pages of information about Hillsbury, local businesses and surrounding communities on its server, however.

As noted previously, both the Cornbury and Hillsbury projects were widely publicized as examples of community-based rural telecommunications development efforts. Both projects had economic development as one of their primary goals, and both were considered by project and community leaders to have succeeded to at least some degree.

This study was designed to look for evidence to support those perceptions. Specifically, this study asked whether the existence of telecommunications development projects for more than three years in these two communities was related to increased use of new telecommunications technologies among businesses and residents in those communities, as compared to similar communities where no community-based development effort had been undertaken.

A university survey research center was hired to do the data collection for this study through a telephone survey. The sample was drawn from telephone directories from the four communities using a systematic method. Businesses and households were sampled separately within the four areas. Household samples were further randomized by interviewing the adult with the most recent birthday. In the business sample, interviewers asked to speak with the chief executive of the company. Data collection took place over a two-and-a-half week period in mid-October 1998.

In all, 876 businesses or residences in the four communities were contacted for the survey. A total of 471 surveys were completed. When calculated after removing disconnected numbers, numbers for households and businesses that were not actually located in the community, and numbers where the person answering the phone was not able to respond due to language barriers, physical or mental incapacity, the response rate was 54 percent. Where interviewers were able to reach and speak with the eligible respondent in the sampled household or business, the response rate was 82 percent.

Findings

Respondents in the two project communities were asked whether they had ever heard of their community's telecommunications development project. When the question was posed, the specific names of the projects were used.

In the smaller project community of Cornbury, a specific goal of the project had been raising public awareness of telecommunications and its importance to the future of the community. The project had been widely supported both financially and otherwise by the business community, and the task force had engaged in extensive public relations and outreach activities. The local newspaper publisher had been an active member of the project task force, and the task force had held town meetings with the wider public to assess telecommunications development needs. In Cornbury, 42.3 percent of respondents said they had heard of the project when asked about it by name. Of those who had heard of it, 25.5 percent said they had made use of the telecommunications facilities that had been developed in the community as a result of the project.

In contrast, in Hillsbury the development project had been based out of the university campus and been run off of grant money, university facilities support, and largely volunteer labor. The project's primary goal had been to develop awareness of Hillsbury among people outside of Hillsbury through its Web presence. Although the project had initially had a community-based advisory board, many members were not active and the local newspaper publisher was not a member. Most publicity about the project took place through word of mouth and public speaking engagements. Although the project was widely recognized in the rural development community, when respondents in Hillsbury were asked whether they had ever heard of it, only 18.3 percent said they had. However, of those who had heard of it, 45 percen t had visited the project's Web pages.

Although it might appear difficult to argue that a community project of which few respondents had heard would have any impact on the community, that is not necessarily the case. In the first place, respondents were asked to identify the project by its formal name. In the case of the larger community in particular, that name was rather arcane, and it is likely that at least a few respondents may have been aware that the community had a significant Web project ongoing without being able to recognize the formal name of the project.

Additionally and probably more importantly, a major focus of both of these projects was to raise awareness and use of telecommunications technologies among businesses in the community. In both communities, interviews done with community leaders revealed that both projects had helped spur involvement with the World Wide Web by the local Chambers of Commerce. This, in turn, is likely to have raised awareness of telecommunications technologies among Chamber members. Thus, it is possible for such projects to have important ripple effects without those affected necessarily being directly familiar with the original project.

H1: Community members will be more likely in communities that have sponsored telecommunications development projects to believe that new technology will be important to their futures than will community members in communities that have not sponsored such projects.

Data showed mixed support for this hypotheses (Table 1). In the smaller communities, the data were in the predicted direction. Members of the project community of Cornbury were more likely than members of the non-project community of Wheatville to say that telecommunications was important to the future of their community, although the difference fell just outside of statistical significance at .06. However, in both communities, the vast majority of community members – 98 percent and 93 percent respectively – believed that telecommunications was at least somewhat important to their community's future.

When responses were controlled for whether the respondent was a business or household, the difference was slightly greater, with 98 percent of Cornbury business executives saying they believed that telecommunications was important to the future of the town, compared to only 91 percent of Wheatville business executives.

Cornbury community members also were more likely to say that telecommunications were at least somewhat important to their families' future, with 77 percent saying so, compared to 68 percent of Wheatville respondents (not shown in tables). Again, however, the result was not statistically significant, even though it was in the predicted direction.

In the larger communities in the study, however, the results were reversed. Respondents in Lakeville, the non-project community, were more likely to believe that telecommunications would be important to the future of their community (Table 1) and to their families (not shown). Ninety-nine percent of respondents in Lakeville believed in the importance of telecommunications to their town's future, compared to 95 percent in Cornbury. When asked about the importance to their families' future, 76.5

percent of residents of Lakeville said they thought telecommunications would be important, compared to only 63.9 percent of Hillsbury residents – a statistically significant result at the .04 level.

Interestingly, respondents in both of the project communities were less likely than respondents in the two non-project communities to express support for the idea of using public tax money to support telecommunications development, with almost no difference found in the levels of support for that proposal between either the two different project communities or the two non-project controls (Table 2). Again, however, the result fell just outside the .05 level of significance.

H2: Members of rural communities that have invested in community-based telecommunications infrastructure development will be more likely to report using E-mail in their workplaces than will members of communities that have not made such investments.

The data show some support for this hypothesis (Table 3), with the data being in the predicted direction although results were not significant.

Overall, respondents in the project communities were more likely to report that they used E-mail at the office more often than any other location. In the project communities, 23.2 percent of all respondents reported using E-mail most often from their offices, compared to 15.5 percent in the non-project communities.

Broken down by community, 23.4 percent of respondents in Cornbury and 22.9 percent of respondents in Hillsbury used E-mail most often in their offices, compared to 14.1 percent in Wheatville and 17.2 percent in Lakeville. Respondents in Wheatville and Lakeville were more likely to report that their homes were the most frequent site of their E-mail use.

It is worth noting that office use of E-mail was higher in the smaller project community of Cornbury than it was in the nonproject community of Lakeville. Lakeville is exactly twice the size of Cornbury, also like Cornbury, is home to an aggressive telecommunications service provider and is located on a major interstate highway. These results suggest that new information and communication technologies are in wider use in the business communities of the project communities than in the non-project communities, which suggests that one of the key goals of these community development projects is, in fact, being met.

When the data were controlled to examine just responses from business executives in the four communities, the results continued to be in the predicted direction for the smaller communities, although the differences between the two larger communities all but disappeared (Table 4). In Cornbury, 32.2 percent of executives said their office was the most frequent site of their E-mail use and that they used E-mail four or more times per week. That compared to 21.1 percent of Wheatville executives who used E-mail mostly in the office and 25.4 percent who said they used it four or more times per week.

In the larger communities, 22.6 percent of Hillsbury executives reported using E-mail primarily in their offices, compared to 22.4 percent of executives in the nonproject community of Lakeville — a meaningless difference. However, Hillsbury executives were more likely to report using E-mail at least once a week (53.2 percent/50.8 percent), although Lakeville executives reported using E-mail more often, with 28.4 percent saying they used it four or more times per week, compared to 24.2 percent in Hillsbury who used it that often.

H3: Members of rural communities that have invested in community-based telecommunications infrastructure development will be more likely to report using the World Wide Web in their workplaces than members of communities that have not made such investments.

Support for this hypothesis was mixed. In the smaller communities, the data were in the direction predicted; in the larger communities the reverse was true. In neither case were the differences statistically significant.

Almost 20 percent of Cornbury respondents reported that they most often used the World Wide Web from their offices, compared with 14 percent in Wheatville (Table 5). When the sample was controlled to include only local businesses, the relationship became even stronger. In Cornbury, 30.5 percent of business executives said they primarily used the Web in their offices, compared to 19.7 percent in

Wheatville. Business use of the Web also was more intense in Combury, where 66 percent of business executives reported using it to gather information at least once a week, compared to 56 percent of executives in Wheatville.

In contrast, 19 percent of Lakeville respondents reported that they used the Internet or Web most often from their office, compared with just under 16 percent of Hillsbury respondents (Table 5). When the sample was controlled to include only businesses, the relationship held, with one-quarter of Lakeville executives saying they primarily used the Web in their offices, compared to 19 percent in Hillsbury. Lakeville executives also reported using the Web slightly more frequently than did Hillsbury executives.

In both pairs of communities, however, respondents in the project community were more likely to report using the World Wide Web at least once a week. In Cornbury, 58.5 percent of the respondents reported using it at least once a week, compared to 46 percent in Wheatville. In Hillsbury, 53.2 percent of respondents reported using it that often, compared to 50.8 percent in Lakeville. Lakeville respondents appeared to use the Web somewhat more intensively, however, with almost a quarter of them reporting using the Web four or more times per week, compared to 19 percent of respondents in Hillsbury.

H4: Members of rural communities that have invested in community-based telecommunications infrastructure development will be more likely to have used E-mail at least once than residents in communities that have not made such investments.

Analysis of the data show some results that clearly are in the predicted direction, although not statistically significant. In both of the project communities, respondents were more likely to report having used E-mail at least once than in either of the non-project communities (Table 6). When the data were controlled to include just the sample of household respondents, the results held. And again, the differences between the two smaller communities were more pronounced than those between the two larger communities.

In the smaller project community of Cornbury, 44.1 percent of all respondents and 30.8 percent of household respondents reported that they had sent or received an E-mail message at least once. That compared to 38.5 percent of all respondents and 25.9 percent of household respondents in Wheatville.

In the larger community of Hillsbury, 50.5 percent of all respondents and 47.2 percent of household respondents had used E-mail at some point, compared to 45.7 percent of all respondents and 38.8 percent of household respondents in Lakeville.

It is worth noting that experience with E-mail appears to be strongly related to the size of the community in which the respondent lives. Both community-wide and household experience with E-mail were higher in the larger non-project community of Lakeville than they were in the smaller project community of Cornbury.

H5: Members of rural communities that have invested in community-based telecommunications infrastructure development will be more likely to have used the Internet or World Wide Web at least once to gather information than residents in communities that have not made such investments.

Analysis also showed the data to be clearly in the predicted direction, although again results were not statistically significant. More than 58 percent of all respondents in Cornbury had used the Internet or World Wide Web at least once to look something up, compared to just under 46 percent in Wheatville (Table 7). When the sample was controlled to include only households, 50 percent of Cornbury households reported having used the Internet/World Wide Web as a resource, compared to 32.8 percent of Wheatville households, a result that fell just short of statistical significance at the .07 level.

The differences were in the predicted direction but less pronounced in the two larger communities. In Hillsbury, 53.2 percent of all respondents had used the Web, compared to 52.6 percent of all respondents in Lakeville. When controlled for just household respondents, the difference increased, however. Just over 45 percent of Hillsbury households reported having tried the Web, compared to only just under 39 percent of Lakeville households.

It should be noted that respondents in all four of these communities were more likely to report that they had used the Internet or World Wide Web at least once to look up something, than they were to report that they had ever sent or received an E-mail message. This suggests that the World Wide Web may be enjoying wider adoption that E-mail.

H6: Community members in rural towns where community-based telecommunications infrastructure development projects have been launched will be more likely to say that new technologies already have had a positive impact on their town.

This hypothesis was supported at a statistically significant level (Table 8). Respondents in the two project communities were significantly more likely to say that new telecommunications technologies are having a positive impact on their rural communities. Additionally, they were more likely than respondents in their respective control communities to say that telecommunications were having a "very positive impact." Again, the effects were more pronounced in the smaller communities than in the larger.

In Cornbury, 87.4 percent of all respondents felt that the impact of telecommunications on their community was either somewhat or very positive, with 30.6 percent terming it "very positive." That compared with 71.9 percent in Wheatville who felt the effects were generally positive, of which 8.9 percent called them "very positive."

In the larger project community of Hillsbury, 80.8 percent of all respondents felt the impact of telecommunications on their town had been somewhat or very positive, with just over 19 percent saying it had been "very positive." By comparison, in Lakeville, 75.9 percent felt the impact was positive with 17.2 percent specifying it as "very positive.

Respondents in the non-project communities also were more likely to believe that telecommunications had had no impact as yet on their communities, or to believe that telecommunications development already had had either a somewhat or very negative impact on their town.

Finally, when asked whether they believed that there was "a strong need for improvement of telecommunications services around here," respondents in the non-project communities were significantly more likely to agree or strongly agree with that statement than were respondents in the two project communities (Table 9). There was a 28 percent difference in the level of agreement with that statement between respondents in the two smaller communities, and a 16 percent opinion gap between respondents in the two larger communities.

This suggests that even when a community-based project has minimal effect on community members' adoption and use of new technologies, the publicity surrounding the project may serve to improve public opinion about the effects telecommunications has on the community.

Discussion and Implications

The findings of this study offer consistent evidence that there is a relationship been the presence of community-based telecommunications development projects and increased adoption and use of these technologies by rural community residents and — even more importantly — by rural businesses. Although the differences between adoption and use in the project and non-project communities were not statistically significant, substantial differences were found in many instances. More importantly, the differences were consistently in the hypothesized direction in the comparisons between the two smaller communities, and were so in most instances when the two larger communities were compared.

Moreover, the study provides even stronger evidence that the presence of a community-based telecommunications development project is related to more positive feelings among community members about the quality of telecommunications services available in the community, and the impact that information technology is having on the community.

One of the reasons there has been so little research on the economic effects of telecommunications development efforts is because of the problem of controlling all of the possible variables that can confound comparative analysis across living communities. This study did not escape that problem. Despite stringent efforts to control as many potential variables as possible, perfect control was not possible.

Potentially confounding variables clearly were a larger problem with the two larger communities in the study, and the different variables present in the two communities could have acted to affect adoption rates in favor of either one over the other. Hillsbury was a slightly larger-sized community than Lakeville and had a branch campus of a state university. Either factor could help raise awareness and use of new technologies among residents and, therefore, could be as responsible for the differences found between the two communities as the presence of Hillsbury's community development project.

Similarly, the smaller differences found between Hillsbury and Lakeville than between the two smaller communities might be attributable to their larger size as communities. As larger communities, they are more attractive markets for telecommunications providers, potentially creating more promotion of telecommunications services and, thus, public awareness.

Equally possible is the idea that the presence of an aggressive service provider in Lakeville — and the media coverage that service provider has generated — has raised community awareness and use of information technologies and thereby reduced the differences between Lakeville and the project community of Hillsbury.

The differences in findings across the two pairs of communities also may be attributable to confounding variables. Community size, for example, is believed to affect access, which affects adoption. Additionally, Cronin et al (1993) found that it took four years before telecommunications development had measurable effects in rural communities. The Cornbury project had been operating for five years at the time of data collection. However, the Hillsbury project had been active for just under four.

Differences between the two telecommunications development project models also may have been responsible for the smaller differences observed in the larger pair of communities. The Hillsbury project focused on marketing Hillsbury to people outside of the immediate region through the Web. In contrast, the Cornbury project focused on increasing local awareness, developing the local infrastructure and encouraging wider use. Clearly, the latter model would be expected to have more direct effects on local adoption than would be the former.

In contrast with the two larger communities, there were far fewer identifiable variables that could have potentially confounded the direct comparisons between Cornbury and Wheatville. The two were identical in size and neither hosted a college campus that would have increased telecommunications access and awareness among residents. Additionally, because of their small size, neither community represented a particularly attractive or cost effective market for ISPs or other telecom.

The only variable that represented a major difference between the two communities that the authors were able to identify was the presence of an active and innovative telecommunications service provider in Cornbury. However, while that service provider was directly involved in launching and managing the task force, the task force itself consisted of a broad base of community residents and businesspersons, and developed its goals based upon public input.

The relative lack of clearly identifiable intervening variables makes the larger differences and the solid consistency of the findings between Cornbury and Wheatville noteworthy, despite the lack of statistical significance. These findings provide the first evidence that with the right project model, a community-based rural telecommunications development project can improve rural community's access to, adoption and use of new technology. Even more crucial from the standpoint of long-term rural community viability in the 21st century, such projects may enhance the adoption and use of technologies by rural local businesses.

The Cornbury experience suggests that elements contributing to the success of a rural community telecommunications project include development of broad-based public and corporate support for the project, including the active involvement of the local business community; participation on the project board of a wide range of community representatives; development of specific and measurable project goals based upon public input; inclusion of a public education and awareness effort as a central element of the project; and pursuit of an active campaign to make the public aware of the project's existence.

There is, however, one critical question that these findings cannot answer: That is whether, given the lack of *significant* differences in adoption and use of new technologies between project and non-project communities, the expenditure of scarce time and financial resources on these projects is justified by the apparently incremental gains in adoption that they provide. The small differences found between project and non-project communities suggests that national media attention to these technologies, and the market demand for services that that awareness creates, is solving many of the universal service problems that rural community leaders had anticipated.

All four of the communities in this study had at least one local dial-up ISP offering service by 1998, although, in the case of Cornbury, the ISP started up as a direct result of the community project. Nevertheless, even distantly located communities of 4,000 were being served by Spring 1998, and there was considerable demand among residents for that service.

What is also interesting in these findings is the fact that the development of community-based projects did *not* appear to be related to the conviction that telecommunications technologies will be important to the future of rural communities. The data clearly showed that a large majority of rural residents were firmly convinced that new communication technologies will be critical to their communities' futures, regardless of whether those communities have invested in telecommunications development as yet. Those same residents were only slightly less convinced that new media will be important on a more personal level in the future of their own families. Clearly, the tremendous media coverage that has attended the emergence of the Internet and the World Wide Web as public access communication media has shaped public opinion.

And finally, the data in this study make clear that the presence of community-telecommunications development efforts is strongly related to more positive feelings among residents about the impact new technology is having on the community, and the availability and quality of local telecommunications services.

This analysis is only a first step in filling the gap in knowledge about the effects of telecommunications development on rural communities and local economies, and of the factors that help make such development successful. Research needs to examine the actual social and economic impact on local communities of widespread adoption of the Internet and Web technologies. Additionally, the sociological factors that support success when a rural community undertakes a major development project need to be examined. And finally, while this study indicates that new technology services are reaching communities as small as 4,000 citizens, a vast number of U.S. towns fall well below that size. Additional investigation needs to be undertaken to see at what community size the market starts failing to provide access to these critical new communication technologies.

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Table 1

Perceived Importance of Telecommunications to Community's Future

	Cornbury (project) %	Wheatville (nonproject) %	Hillsbury (project) %	Lakeville (nonproject) %
Somewhat/very important	98.1	93.1	95.1	99.1
Not very/not at all important	1.9	6.9	4.9	0.9
N	106	130	103	110

X=3.33, df=1, p=.07 *X=3.02, df=1, p =.08*

Table 2

Support for Investing Tax Dollars in Community Telecommunications Development

	Cornbury (project) %	Wheatville (nonproject) %	Hillsbury (project) %	Lakeville (nonproject) %
Somewhat/very supportive	58.9	68.8	58.3	65.5
Somewhat/very opposed	41.1	31.3	41.7	34.
N	107	128	103	113

X=2.47, df=1, p>.05 *X=1.19, df=1, p>.05*

Table 3

Most Common Site for Respondents to Use E-mail

	Cornbury (project) %	Wheatville (nonproject) %	Hillsbury (project) %	Lakeville (nonproject) %
Have never used E-mail	57.7	66.7	57.8	61.2
Office	23.4	14.1	22.9	14.7
Home	16.2	18.5	16.5	19
Other	2.7	0.7	2.8	2.6
N	111	135	109	116

X= 7.1, df=9, p>.05

Table 4

Most Common Site for Business Executives to Use E-mail

	Cornbury (project) %	Wheatville (nonproject) %	Hillsbury (project) %	Lakeville (nonproject) %
Have never used E-mail	47.5	57.7	54.8	53.7
Office	32.2	21.1	22.6	22.4
Home	20.3	21.1	21.0	22.4
Other			1.6	1.5
N	59	71	62	67

X=2.16, df=2, p>.05

X=0.41, df=3, p>.05

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Table 5

Most Common Site for Respondents to Use the Internet/World Wide Web

	Cornbury (project) %	*Wheatville (nonproject)* %	*Hillsbury (project)* %	*Lakeville (nonproject)* %
Have never used WWW	47.7	58.5	52.3	55.2
Office	19.8	14.1	15.6	19.0
Home	20.7	22.2	22.9	22.4
Other	11.7	5.2	9.2	3.4
N	111	135	109	116

X=9.87, df=9, p>.05

Table 6

Percentage Respondents Who Have Ever Sent/Received E-mail

	Cornbury (project) %	Wheatville (nonproject) %	Hillsbury (project) %	Lakeville (nonproject) %
Yes	44.1	38.5	50.5	45.7
No	55.9	61.5	49.5	54.3
N	111	135	109	116

X=3.59, df=3, p>.05

Table 7

Percentage Respondents Who Have Ever Looked Something Up on the Internet/WWW

	Cornbury (project) %	Wheatville (nonproject) %	Hillsbury (project) %	Lakeville (nonproject) %
Yes	58.6	45.9	53.2	52.6
No	41.4	54.1	46.8	47.4
N	111	135	109	116

X=3.98, df=3, p>.05

Table 8

Perception of the Impact of Telecommunications on the Community

	Cornbury (project) %	Wheatville (nonproject) %	Hillsbury (project) %	Lakeville (nonproject) %
Very positive	30.6	8.9	19.3	17.2
Somewhat positive	56.8	63.0	61.5	58.6
No impact	5.4	15.6	4.6	8.6
Somewhat negative	2.7	2.2	1.8	4.3
Very negative	0	2.2	0.9	0.9
Don't know	4.5	8.1	11.9	10.3
N	111	135	109	116

X=35.1, df=15, p<.05

Table 9

Perception of Whether There is a "Strong Need for Improvement" in Local Telecommunications Services

	Cornbury (project)	Wheatville (nonproject)	Hillsbury (project)	Lakeville (nonproject)
	%	%	%	%
Strongly agree	8.1	29.6	15.6	13.8
Agree	38.7	45.2	40.4	55.2
Neither agree nor disagree	11.7	8.9	8.9	6.0
Disagree	33.3	12.6	19.3	15.5
Strongly disagree	1.8	0	0	3.4
Don't know	6.3	3.7	4.6	6.0
N	111	135	109	116

X=59.05, df=18, p<.00

Broadening the Boundaries of Interactivity: A Concept Explication

By

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Broadening the Boundaries of Interactivity: A Concept Explication

Abstract

The use of interactivity as a variable in empirical investigations has dramatically increased with the emergence of new communication channels such as the World Wide Web. Though many scholars have employed the concept in analyses, theoretical definitions are exceedingly scattered and incoherent. Accordingly, the purpose of this project is to engender a detailed explication of interactivity that could bring some consensus about how the concept should be theoretically and operationally defined. Following Chaffee's (1991) framework for concept explication, we generate new theoretical and operational definitions that may be central to future work in this area. In particular, we suggest that interactivity is both a media and psychological factor that varies across communication technologies, communication contexts, and people's perceptions.

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Broadening the Boundaries of Interactivity: A Concept Explication

INTRODUCTION

With the ongoing influx of new communication technologies, many traditional concepts in mass communication are being redefined, reworked, and reinvented. Indeed, McQuail (1994) and Williams et al. (1988) argue that the 'convergence' of new technologies is skewing the boundaries involved in traditional mass communication theories. Newhagen et al. (1995) and Steuer (1992), for example, elaborate on the lack of theoretical discussion with the concept of interactivity and subsequent problems it raises in research. Such questions surround whether interactivity is a characteristic of the context in which messages are exchanged or is it strictly dependent upon the technology used in a communication process? Further, are we drifting toward a more cybernetic model of communication as outlined by Wiener (1948)? Thus, it would be valuable to explicate this concept in an attempt to contribute to the term's theoretical foundation, which has lagged far behind the proliferation of empirical work converging on it. Consequently, in this analysis, Chaffee's (1991) framework for concept explication is employed to carefully dissect this variable.

Typically, a concept explication is part of a larger empirical study, but in some instances, it is an entire project in itself—especially when conceptions are hotly contested as has been the case with interactivity. More than anything else, explication is about theorizing. Chaffee (1991) states that "without explication, our words are nothing more than words, and our data add nothing to them. Theory, or more exactly, theorizing, consists of an interplay among ideas, evidence, and inference" (p.14). Accordingly, the following steps were executed to complete this project: (1) provide a general background of interactivity; (2) survey relevant literature on the concept; (3) identify the concept's central operational properties; (4) locate the present definitions of the concept; (5) evaluate and modify those definitions; (6) propose a conceptual definition; (7) propose an operational definition; and (8) discuss the implications of the arrived at definition on future research.[1]

GENERAL BACKGROUND

When first thinking about interactivity, one must outline some basic assumptions that researchers connect with the term. Generally, we will find that interactivity is associated with new communication technologies (e.g., DeFleur & Ball-Rokeach, 1989). The level of interactivity varies across media, usually anchored in their ability to facilitate interactions similar to interpersonal communication (Williams et al., 1986). However, the standard for what makes one medium more interactive than another is quite ambiguous. In most empirical literature, interactivity is employed as an assumed independent variable to describe a medium (e.g., Kayany et al., 1996). In these types of studies, researchers call an experimental condition "interactive" without considering multiple levels of the variable, let alone defining its meaning. Newhagen et al. (1995) deviate from the norm by examining "perceived" interactivity as an individual level psychological variable.

At first blush, one could submit that there should be no alarm at the scarcity of theoretical debate on interactivity. As long as we all accept that the term implies some degree of receiver feedback and is linked to new technologies, why should there be a problem? The dilemma is that while these basic tenets are usually agreed upon, the components and features that comprise the various definitions can lead to great discrepancies in scholarly output. Newhagen et al. (1995), for instance, articulate that interactivity levels rise and fall within a medium dependent on people's perceptions, while Schneiderman (1987) suggests interactivity levels only fluctuate by altering technological properties. Further, variables that are highly related to interactivity, such as social presence and feedback, are shaped by how scholars conceptualize it. Thus, Bretz (1983) reports that interactivity is linked to an interdependence of messages, while Steuer (1992) understands it as more technologically determined. Consequently, these two interpretations would obviously create differing opinions on computer design recommendations, with the former stressing message content and the latter emphasizing technological structure. Before seeking to formally define interactivity, the next logical step is to survey the concept's literature in an attempt to synthesize its fragmented meanings.

LITERATURE REVIEW

Any literature review of interactivity is cumbersome because of the vast implicit and explicit explanations prepared by researchers from many different academic and professional perspectives. Indeed, interactivity elucidations have been predominantly informed by communication, psychological, and computer / science design literature--although other disciplines have also made meaningful contributions. Due to the diverse literature on the subject, it is apparent that some organizational device would be indispensable in discerning among its various meanings. Two dimensions emerge in scholarly work that could be used to arrange the various definitions: the object emphasized by scholars and the intellectual perspective from which the meaning originated. Of course, the categories within the two dimensions do overlap, yet still allow for concise classification of the literature. Table 1 is presented below for the reader's reference throughout the remainder of this project.

- - - Table 1 Here - - -

As the analysis continues, we will begin to fill in the table cells with various authors in hopes of locating common threads and subtle differences across the literature.

Communication Definitions

Any discussion of interactivity inevitably draws from its roots in Cybernetic theory as mapped out by Wiener (1948). As a basic communication model, the chief difference between Cybernetic theory and the Shannon and Weaver (1949) model was its emphasis on *feedback*. This ability for message receivers to respond to message senders developed into a principal component of interactivity conceptions. Under this framework, interactivity is an attribute of the channel through which communication occurs. Communication is seen as a dynamic, interdependent process between senders and receivers. As with most communication work investigating this topic, the Cybernetic position belongs in the middle cell of our first column in Table 1.

With the growth of new media such as the computer, videotext, cellular phones, etc., more conceptual deliberation of interactivity was needed. Thus, Rafaeli (1988) explains interactivity "as an expression of the extent that in a given series of communication exchanges, any third (or later) transmission (or message) is related to the degree to which previous exchanges referred to even earlier transmissions" (p.111). Williams et al. (1988) write that interactivity is "the degree to which participants in a communication process have control over, and can exchange roles in, their mutual discourse is called interactivity" (p.10). Here, we see a shift away from emphasis on channels and more to the interconnected relationship between messages exchanged (also referred to as *third-order dependency*). A third-order dependent message interaction in a computer chatroom might read like the following:

User 1: "Five minutes ago, you said that you wanted to go to movies tonight, why have you changed your mind?"

User 2: "I didn't change my mind. Two minutes ago, I thought you said you wanted to go to the movies tomorrow?"

From this dialogue, we notice that both participants refer to prior transmissions, engendering a third-order dependency. In addition, interactivity necessitates user control over the pace and content of the medium in question (see Bretz, 1983). It relies upon an individual's ability to comprehend and react to previous message transmissions among participants. Consequently, while this definition clusters into the communication setting's category, the object of focus, in this perspective, has transferred from channel to message relationship. Most conventional use of interactivity has stemmed from this belief. If a system allows for third-order dependency between participants, it is deemed interactive. In empirical terms, scholars in this tradition examine content of interactive media and link it to psychological and behavioral variables (e.g., Rafaeli, 1986; Rafaeli & Larose, 1993).

Of course, this approach is problematic because it does not underscore elements of interactivity that other researchers find substantial--specifically, technological and individual factors. Current work bridging communication and computer science (e.g., Reeves & Nass, 1996) has prompted designers to consider technological structure and audience idiosyncrasies when formulating their products. Steuer (1992), for example, furnishes an intricate account of interactivity, which he contends is "the extent to which users can participate in modifying the form and content of a mediated environment in real-time" (p.84). His conception is admittedly technologically based and is governed by the speed, range, and mapping capabilities of a medium, although the user possesses ultimate control.[2] One can surmise that increases in any one of these factors raises the level of interactivity for a given medium. However, there may be a point of diminishing returns when too much of one of these factors may actually make an experience less interactive. Aldersey-Williams (1996) argues that "IDEO found that most people only use a few functions offered by state-of-the-art television, and that they tend no to readjust the controls once they have set them" (p.35). In this situation, excessive *range* overburdens the user. Nevertheless, the potential quantification of interactivity levels, as generated by Steuer (1992), is of great benefit for constructing operational definitions.

Durlak (1987) expresses a slightly different technological viewpoint by producing a typology for interactive media. Variables implicated with interactivity become equated with the physical components of interactive systems themselves. For example, *hardware* encompasses "sensory richness," "spatial management," and "responsiveness." Here, the composition of technology becomes our litmus test to recognize interactivity. Returning to Table 1, we deduce that Steuer and Durlak are best grouped in the upper left cell, but please note their differing views reflect that these classifications leave room for multiple interpretations within each perspective.

While most implied and explicit definitions of interactivity in communication concentrate on the technological and communication context aspects of the concept, at least one study delves into the user's perception of interactivity as a dependent variable. Newhagen et al. (1995) adopt interactivity as a psychological variable in a content analysis of NBC news viewer e-mail to gauge perceptions of interactivity. Specifically, the size of the intended audience in an e-mail message is inversely correlated to the level of perceived interactivity--i.e., the smaller the audience, the higher the level of perceived interactivity. Unlike other constructs, here interactivity is comprehended as a variable that can dwell within an individual's cognitions. This perceiver-based outlook introduces a new path for researchers to explore. This complements previous conceptions that emphasized channel and medium structure.

Psychological Definitions

Though communication theorists perhaps provide the most systematic overview of interactivity, this explication project would be incomplete without acknowledging the additions made by other intellectual discourses. It is well documented that psychology plays a central role in interactive media design (Aldersey-Williams, 1996). As one might imagine, psychological work on interactivity prefers the individual to be its object of focus. Leary (1990) poses an intriguing analogy comparing the evolution of *interactivity* to the development of *interpersonal* in psychology. "Both concepts are related to very wide and deep and irrevocable changes in the way people relate to the world" (p. 230). In fact, Leary predicts that the success of an interactive medium hinges on its ability to resemble the interpersonal. This conclusion runs parallel to communication scholars who have long asserted that face-to-face communication is a consummate interactive experience (see Bretz, 1983; Williams et al., 1988).

Turkle (1984), while never affording any formal definition of interactivity, further develops the notion of interactivity as an interpersonal, humanistic variable. Her ethnographic work suggests that human beings ascribe some very human characteristics to interactive systems (e.g., a computer is 'alive' and can even 'cheat' according to children). Indeed, there is a connotation that interactivity is related to the ability of individuals to experience different media as if they were engaging with other human beings. This is substantial because the evaluation of interactivity does not lie within the technology but in the perception of the user. This has shocking ramifications for scholars who judge a medium as interactive on the basis of technological criteria. Obviously, this academic work is best placed in the lowest cell of the psychological column in Table 1.

Computer Science / Design Definitions

Much of the work in the communication technology category is derived from the computer science / design literature. Generally, one would expect the object of interest in such perspectives to be media technology. That is, the user of interactive media would be, at best, a mechanism initiating an interactive communication experience, but not a central figure in the concept's definition. For example, in professional circles, interactive media are often thought to be "mechanisms for delivering image, text and sound data in which the user interacts with the database" (Hutheesing, 1993, p. 244). Further, Dyson (1993) infers that most computer professionals understand interactivity in terms of converging technology. Surprisingly though, what we find, at least in the more academically based literature, is an evened approach that is equally concerned with medium structure and human characteristics. Schneiderman (1987), who does not explicitly define interactivity, suggests a checklist to estimate the success of an interactive system. He balances technological criteria (system functionality and reliability) with user criteria (time to learn, speed, rate of user error, etc.). His accentuation on speed is especially enlightening because it illustrates the tendency toward perceiver-determined representations. Heckel (1984) recommends that interactive software designers "learn to think like a communicator and to practice an artistic craft as well as an engineering one" (p.xii).

Interactivity definitions are consistently becoming more user-based. Naimark (1990) suggests that we differentiate between *realness* and *interactivity*. The former refers to the competency of technology to blur the boundaries between physical and mediated reality. The latter refers to the aptitude of users to modify, interact, and respond to media which, in turn, transform the mediated environment being experienced. Moreover, Norman's (1988) theme of mapping as a vital factor in interactivity confirms the human-centered concern evident in current design literature. Collectively, computer science / design researchers have greatly enhanced our knowledge of interactivity through their balanced consideration of technology and human beings. By combining the cogent areas of communication, psychological, and design definitions, we may be able to identify the true nature of this variable.

Summary

Before proceeding any further, it is essential we reformulate Table 1 to organize the major authors of the literature review visually. In addition, certain attributes salient to authors should also be listed. Table 2 is presented below as a reference for the remainder of this project.

- - - Table 2 Here - - -

EMPIRICAL DESCRIPTION

Based on the literature review, it is clear that the operational definition properties of interactivity are limited. Formal operational definitions are basically non-existent and little empirical work demarcates levels of the variable (although the conceptual definitions certainly imply this possibility). However, by closely scrutinizing the small number of studies that discuss interactivity operationally, some of these properties may be pinpointed.

Typically, interactivity is used as a descriptive characteristic of new media (e.g., DeFleur & Ball-Rokeach, 1989). Most authors center on feedback as the key signal of interactivity (e.g., Rafaeli, 1988). Thus, if participants can engage in a message transaction that is comparable to interpersonal communication, the experience is labeled interactive (e.g., Kayany et al., 1996). Obviously, this is not a precise operational measure of interactivity. At best, interactivity, in this light, is a two-level, nominal variable; i.e., something is or is not interactive.

As mentioned earlier, an exception to this norm occurs in Newhagen et al. (1995) where interactivity is operationalized as a perception of the individual. Specifically, messages addressing large audiences indicate low perceptions of interactivity, while those targeting an interpersonal audience are perceived to be highly interactive. This type of research is promising because it shows that interactivity is not just applicable in depicting media technology. Steuer (1992) does not perform an empirical analysis but advocates that interactivity should be operationalized in terms of the medium's speed, range, and mapping abilities.

While few studies operationally define interactivity, we may be able to glean some very basic operational properties from the literature. As disclosed in Newhagen et al. (1995) and in some related definitions, interactivity is a variable that fluctuates across individuals and media (e.g., computers are more interactive than newspapers).

Interactivity levels are fairly stable across time in media technologies but could vary within individuals' perceptions. Steuer (1992) hints that interactivity levels should correlate with telepresence.[3] Newhagen et al. (1995) discovered that perceived interactivity corresponds to intended audience size. Finally, based on the arguments of Bretz (1983) and Rafaeli (1988), one can assume that the ability to induce feedback is a major prerequisite to calling a medium or a communication experience interactive.

DEFINITION

Generally, it appears that most interactivity research fails to properly conceptualize or operationalize the term (e.g., Kayany et al., 1996). On a simple everyday level, interactivity deals with the ability of systems to simulate face-to-face communication, although the features and components of it change with authors. To review, the following are some of the explicit definitions encountered in the literature search:

Interactivity is "as an expression of the extent that in a given series of communication exchanges, any third (or later) transmission (or message) is related to the degree to which previous exchanges referred to even earlier transmissions" (Rafaeli, 1988, p.111).

Williams et al. (1986) say "the degree to which participants in a communication process have control over, and can exchange roles in, their mutual discourse is called interactivity" (p.10).

Steuer (1992) reports it as "the extent to which users can participate in modifying the form and content of a mediated environment in real-time" (p.84).

Based on scholarly work from the intellectual discourses covered, we can begin to compile a list of the various elements and meanings of interactivity. Some consensus can be reached concerning the chief ingredients of an interactive experience. Two-way communication must exist, usually through a mediated channel. The roles of message sender and receiver must be interchangeable between equal participants. The speed of communication among participants should probably occur as close to real-time as possible, although there are instances when it might not be (to be discussed below). In addition, some third-order dependency between participants is usually necessary. For the most part, communicators can be human or machine. Individuals must be able to manipulate content, form, and pace of the mediated environment in some way. Finally, face-to-face communication remains a standard by which we judge interactivity.

Problems w/ Definitions

While some unanimity among authors is clear from these common definitional threads, problems frequently arise when scholars stress one of these features over another. For example, much of the communication literature is preoccupied with factors related to communication context, such as message relationships and channels (e.g., Rafaeli, 1988). Meanwhile, Steuer (1992) delimits interactivity as a property of technology consisting of speed, mapping, and range. Though speed and range seem consistent with basic views of interactivity, mapping is probably more topic specific for computer software.

A major problem related to the concept of speed is that, it too, is weakly explicated. For instance, a distinction should be made between objective standards of speed and perceptions of speed. This is a critical distinction because people's interpretations of an interactive experience will not necessarily conform to objective measures of dimensions of that experience. Thus, communicating on the Internet with a 28800 modem by today's standards is perceived as average in terms of speed, but a few years ago, this seemed like lightning. In a few years, it will be perceived as extremely slow. The point here is that objective standards of speed (e.g., 28800 BPS) might not change, but users' perceptions do. Accordingly, we should separate these two qualities of speed in our consideration of interactivity.

Beyond speed, other problems also exist with the definitions reviewed herein. In contrast to some of the technologically based work (e.g., Durlak, 1987), for example, the original Cybernetic model seems appropriate for specific mediums (e.g., telephone) because of its emphasis on feedback, although this model is probably antiquated for some of today's complex media technology (e.g., Virtual Reality). Moreover, authors, including Heckel (1984) and Schneiderman (1992), conceive interactivity in close relation to the user. In particular, Leary (1990) sees interactivity as the capacity for a system to mimic interpersonal communication. Newhagen et al. (1995) takes this a step further by displaying interactivity as a possible perception for individual users.

Others maintain that a system may not be interactive if all it members cannot cognitively process the messages transmitted, raising questions about machine to machine communication (see Williams et al., 1988 for discussion). The notion of real-time is problematic because it suggests that instantaneous feedback is required for an interactive experience. Still, many technologies, which most scholars would concur are interactive, have delays in response times (e.g., email may be returned after one week but is still considered interactive by most). One strategy for solving this dilemma might be to think of real-time on a continuum, where instantaneous communication is the ideal for interactive experiences, but delayed communication is also acceptable. The key feature is that two-way communication is possible; the speed (perceived and real) of the two-way communication is important but secondary.

Finally, the face-to-face standard is difficult to reconcile with the possibility of communicating one-to-many as might be the case with e-mail. Therefore, while some basic agreement exists on a few fundamental attributes of interactivity, our challenge remains to assimilate the plethora of scattered conceptions in the literature into a comprehensive framework.

Before abandoning this section, it is often helpful to link the theoretical meanings of abstract terms with more low order concepts. Perhaps the most concrete term embracing interactivity is technology. In recent years, interactivity has become more and more associated with the personal computer. We are told continuously that the Internet is interactive and widespread dissemination of interactive videophones is in the near future. Generally, any new communication technology will be dubbed interactive if it allows some degree of user response. Traditional media (e.g., TV, radio, and newspapers) are excluded because their capacity for feedback is limited. Among the various new media, interactivity is highly connected to the following: computers, cellular communications, digital communications, video-conferencing, software, etc.

Since the end goal of an explication project is to operationally define a concept (Chaffee, 1991), it is vital that we tentatively sketch out some basic empirical rules for observing interactivity.[4] First of all, there must be at least two participants (human or non-human) for interactive communication to transpire. Except for the case of face-to-face communication, some technology allowing for mediated information exchanges between users through a channel must be present (e.g., telephone or computer chatroom). Finally, the possibility for users to modify the mediated environment as close to real-time as possible must also exist. Once these conditions have been met, interactive communication can be detected.

The key to noticing interactivity on an individual level lies in the researcher's competency to recognize simultaneous comprehension and response to communication transmissions by participants. Normally, evidence for this would consist of direct observations, questionnaires, and content analyses. Psychological scales, like those formed in Newhagen et al. (1995), could be contrived to approximate perceptions of interactivity by users. For example, questionnaires might monitor typical interpersonal communication variables as indicators of perceived interactivity, i.e., the higher scores on such variables would mean higher perceptions of interactivity. To ascertain interactivity levels of a particular medium, researchers could devise a scale based on predetermined parameters. Specifically, the number of possible actions available to users (range) by a media system could be one indicator of interactivity for a particular medium. To gauge interactivity levels of a communication context, one could calculate the frequency of messages that refer to earlier exchanges (third-order dependency). These measures could then be scaled and statistically tested to calculate perceived and actual interactivity scores. Hence, we could make comparisons across media and individuals more precisely than previously imagined. This would be a powerful tool for both professionals and academics.

REVIEW OF DEFINITIONS

As argued earlier, little consensus has been achieved regarding interactivity. So far, we have identified the concept, surveyed the literature, and reviewed the scattered definitions. It is now necessary that we hone in on some basic properties of the varied definitions. To begin, interactivity should be categorized as a relational variable. On an individual level, it resides in the minds of media users as perceptions (Newhagen et al., 1995). As a quality of media, it can be seen in the form, content, and structure of technology and their relation to the user (e.g., Steuer, 1992). Typically, interactivity is examined within a dyadic communication context between humans and machines, or humans and humans via machines (Rice, 1984). It is difficult to isolate from variables such as social presence, transparency, and user friendliness (Durlak, 1987). Other connected factors are feedback and speed (perceived and real).

Most definitions of interactivity are tacit. Researchers often make broad assumptions about interactivity and simply merge them into positivist work as a two-level, nominal independent variable. Many of the explicit interpretations that endure (e.g., Rafaeli, 1988, Bretz 1983) understand interactivity in abstract terms but do not really delve into operational definitions. The closest attempts would resemble the Steuer (1992) and Newhagen et al. (1995) studies, but more work needs to be executed.

The scant supply of empirical work makes evaluation of other researchers' operational measures arduous. Few would dispute that the concept "really" exists, but how one would isolate and order it is subject to debate. Currently, the best technique for appraising operational measures of interactivity is to either sift through the few studies operationalizing this variable (as done in the present analysis) or to explore empirical literature covering related concepts such as social presence. Walther et al. (1994) encapsulate previous work on some related variables.

The academic usage of "interactivity" is marginally inconsistent at best. While some accord on the general meaning remains, many fundamental differences (e.g., channel vs. technological attributes) lead to incongruity in implied and explicit theoretical definitions. However, there is some common understanding as to which related variables belong together--e.g., Steuer, (1992) and Durlak, (1987) both believe that social presence is a crucial factor. In fact, meanings are not so scattered that intellectual dialogue is impossible. Reconsideration of interactivity by academics can bring about a more holistic awareness of the concept.

DEFINITION MODIFICATION

As we continue through the explication process, we may want to contemplate modification of interactivity definitions. So far, we have demonstrated that interactivity definitions have three roots, which have all made valuable improvements in the evolution of the concept. Rather than alter any of the contributions made by other researchers or highlight only one area of the multiple conceptions, it is imperative that instead, we merge interactivity conceptions into a hybrid definition. A parsimonious interpretation that encompasses the central aspects of the previous definitions reviewed is more appropriate. The goal here is to eliminate nonessential components of the varying views and blend the fundamental ones into a comprehensive vision of interactivity. Consequently, we endeavor to formulate a definition of interactivity that includes the following as major dimensions: (1) the structure of a medium (Durlak, 1987); (2) the context of communication settings (Rafaeli, 1993); and (3) the perception of users (Turkle 1984). Hence, the final definition will hopefully allow interactivity to be accepted as both a media and psychological variable by scholars. Visually, the definition outlined above might look like this.

- - - Figure 1 Here - - -

TENTATIVE DEFINITION

As asserted throughout this paper, interactivity definitions have stressed three primary areas: technological properties, communication context, and user perceptions. The problem has been that researchers have not tied these three aspects together into an inclusive definition. This is what we will attempt to accomplish now.

Definition

Interactivity can be defined as:

the degree to which a communication technology can create a mediated environment in which equal participants can communicate (both one-to-one and one-to-many) as close to real-time as possible and participate in reciprocal message exchanges (third-order dependency). With regard to human users, it additionally refers to the ability of users to perceive the experience to be a simulation of interpersonal communication and increase their awareness of telepresence.

Clarification

To clarify a few points about the terms consolidated into this definition, by communication technology we allude to anything from a telephone to a computer system. Further, a mediated environment can be anything from a telephone wire to Virtual Reality. Communication, in this context, can range from simple information transfer to sophisticated movements in a video-game, as long as the system conforms to the other specifications enumerated. Participant relationships would normally be human-to-machine or human-to-human via machine but could be machine-to-machine in rare cases. Real-time refers to the degree communication exchanges can be synchronous but note that "as close as possible" suggests a range, making instantaneous communication back and forth an ideal standard rather than a necessary characteristic. In short, real-time is a goal for interactive experiences to strive for but not always attainable. Third-order dependent message transmissions are applied in the tradition of Rafaeli (1986) and Bretz

(1983). Telepresence is elucidated as the ability of a medium to form an environment that, in the minds of communication participants, takes precedence over actual physical environments (Steuer, 1992). The first segment of the definition is designed to cover the technological structure and communication settings aspects of interactivity, while the latter part integrates user perceptions.

Interactivity, in this light, contains all the major components of previous explications, but demarcates certain boundaries that must be adhered to in order for a medium or communication experience to be regarded as interactive. For example, it includes all types of technology, but clearly differentiates between mediated and non-mediated communication. Therefore, a conversation over the phone is interactive, while a dialogue in person is not (though technological simulation of interpersonal communication is central). Our definition's exclusion of "pure" interpersonal communication is debatable; however, we feel the concept is so tied to technology (from a communication perspective at least) that we distinguished between mediated and nonmediated experiences.[5] The "range" strategy to real-time is also meaningful because delayed responses in communication are still included in the definition, yet we are additional able to understand that communication experiences become more "interactive" as they approach real-time.

The vague use of "mediated environment" is bound to receive criticism but is purposeful because we are aiming to accommodate all two-way communication performed with or through media technologies. Of course, some mediated environments are more interactive than others, contingent on factors such as choices of actions provided to participants and the ease with which participants can direct and adjust the constructed mediated environment. This will be discussed in more detail in the operational definition stage of the explication process. Finally, perceptions, in this view, are limited to humans because researchers argue that the simulation of interpersonal communication and increased telepresence are variables relevant only to human communication, not machine-to-machine interactions (e.g., Keltner, 1973). The first portion of the offered definition adequately accounts for machine-to-machine communication experiences, while human perceptions are integrated into the second segment.

To observe interactivity as it has been outlined above, we require a three-stage inspection procedure. First, we are interested in looking at the attributes of the communication medium being used during an interactive experience. Within this context, objective criteria will be formulated to produce an interactivity score for a medium, e.g., how fast does a system allow for information transmissions? Next, we will want to scrutinize the environment in which communication is occurring. This can be achieved by content analysis to establish the degree of third-order dependency among communication exchanges. Finally, we will probe individual perceptions of such interactions and devise perceived interactivity scores. One strategy for accomplishing this is through questionnaires. The value of such an observation plan is that it employs multiple indicators to detect this variable. Thus, the units of analysis are as follows: individual mediums, single communication experiences (comprised of sets of message transmissions based on interactions with communication technologies), and user perceptions.

Because of the different measures necessary to observe interactivity as completely as it is proposed here, data conversions are inevitable but not too difficult. To complete this, we must consider each step of the detection process separately. First, when measuring technological interactiveness, we could create an index to produce a "technology interactivity score." In a basic investigation, this might be accomplished by including the average number of choices allowed by a medium and the average speed of communication into the conversion. In the second stage of the inspection process, traditional operational procedures for third-order dependencies will be utilized as a basis for a "communication context interactivity score", i.e., tallying the amount of overall communication transmissions that allude to prior message transmissions (Rafaeli, 1988). Finally, a composite scale of interpersonal communication measures might be adapted to produce a "perceived interactivity score." Depending on the intentions of the study, scholars may include just one of these measures in their inquiries or perform more complex statistical tests to create an "overall interactivity score." By gauging interactivity in this manner, we can make comparisons across mediums, communication exchanges, individuals, and overall interactive experiences. This is an especially precious resource for empirical researchers in the new media area who are regularly called upon to make comparisons of new technologies. At this point, specific operational procedures will be supplied to explain how this might manifest in an empirical investigation.

OPERATIONAL DEFINITION

For the purposes of this explication project, we will suppose that a researcher is interested in ascertaining the total degree of interactivity for some new computer communications system software. We will also assume that the scholar has the means to perform an experiment, which would be the ideal method for evaluating the system. The first step he must take is to define the population and draw a sample.[6] A random sample of about 30 computers equipped with the system would suffice to represent the overall population. He will also need to draw an equal sample of users to test out the system. In social scientific investigations, every attempt should be made to acquire a sample with the demographic makeup of the population that the researcher wants to make generalizations about (Kerlinger, 1986). Once the sample is found, the researcher must now devise measures and make his observations.

Creating operational measures is one of the more challenging phases in carrying out an empirical study because the items need to be discernible enough that they can be measured but also need to encompass the actual concept the researcher is attempting to quantify. Hence, a major consideration revolves around the reliability and validity of measures. By applying multiple indicators as intended here, our empiricist should dramatically strengthen reliability (Chaffee, 1991). The researcher should also aim to improve validity by matching the operational definition with the conceptual definition granted earlier. To list the appropriate observations in the inspection process, data will be collected by scrutinizing: attributes of the software program, the content of communication transmissions, and user perceptions.

The first operational measures will examine the medium's structure, i.e., the computer system. Steuer (1992) and Durlak (1987) confer some logical measures of interactive technology: speed, range, and mapping. Of these, speed and range appear to be most appropriate because mapping is more applicable for Virtual Reality or video-games. Our researcher could operationalize speed (objective) as an average between the amount of time it takes for the software to transmit information from one participant to another or the whole group and the amount of time responses take to be communicated (feedback).[7] Range could be computed as the number of actions the system advances to the user. For example, can subjects only communicate with one person at a time, or many simultaneously? Can individuals reply to information while receiving it? Each of these possible actions are counted toward a mapping score. Building on the ideas of Durlak (1987), the scholar might approximate technological complexity as the amount of devices employed by the system to activate the five senses (sensory complexity). For example, written text would activate visual senses while use of sound would activate acoustic senses. This is instrumental for comparing different mediums because it acknowledges that video-conferencing, for instance, is more technologically complex than telephone discussions. Another advantage of this operational definition is that it is broad enough to include nearly all interactive communication experiences, yet is not too simplistic to assess such factors as graphics quality. It furnishes a criterion that is based on objective properties of the system, not subjective perceptions of the user. Higher levels on any of these measures signify higher levels of 'technological interactiveness.'

The second set of operational measures concentrates on the environment in which interactive communication takes place. For this, the researcher could have two measures: one of third-order dependency and one of social presence. Third-order dependency would be quantified in the content analysis by the percentage of overall messages that refer to prior message transmissions. Subjective judgments of coders would probably be sufficient to assess which messages allude to prior exchanges and which do not. Social presence, which in this context is delimited as the ability of users to convey their presence in communication transmissions, might be operationalized as the percentage of messages when subjects explicitly refer to themselves (e.g., "I, me, my", etc.). While this measure lacks validity, it is extremely reliable and clearly represents a demonstration of communicating social presence. Higher percentages on both indicators would signal higher 'context interactivity levels.'

Finally, the third set of measures entails perceived levels of interactivity. As mentioned earlier, this could be detected by questionnaires once the experiment has concluded. When investigating participant perceptions, the researcher must judge how well a communication experience simulated face-to-face communication, since we have already decided that face-to-face communication is a standard by which interactive communication is evaluated. Some of the most important variables in face-to-face / interpersonal communication are proximity, sensory activation, and speed of response (Bretz, 1983; Chesebro & Bonsall, 1989; Meyers & Meyers, 1976). Therefore, the questionnaire should measure these and other related variables such as telepresence to compute a perceived interactivity score.

Our hypothetical scholar could form Likert scales for each of these measures. Thus, they would be operationalized as follows: (1) proximity would be the degree to which a respondent feels he / she is "near" other subjects when engaging with the system from "very far" to "very close"; (2) sensory activation would be operationalized by asking the respondent to rate which senses (sight, hearing, touch, etc.) were heightened during the experiment from "not at all" to "very much"; (3) speed of response would be operationalized as how fast users perceived the system allowed participants to react to one another's transmissions from "very fast" to "very slow"; and (4) telepresence would be operationalized as the accuracy with which users could describe the physical environment of the laboratory--presumably the less accurate, the higher the sense of telepresence because the mediated environment would take precedence over physical surroundings. Of course, other factors could adversely affect telepresence, but the researcher hopes that randomization should control for these. A composite scale of these measures would create a perceived interactivity score. The higher the score, the higher the level of 'perceived interactiveness.'

Once the data have been collected, they would be transformed, producing technological, communication context, and perceived interactivity scores. Once the three scores are verified, we can either combine them statistically to manufacture an overall interactivity score or simply use them individually to make decisions about the system. As an overall score, the data would cover all three essential dimensions of the interactivity definition offered. Individually, the data magnify the attribute of interactivity upon which the researcher wishes to converge on.

Empirically, the data will probably reveal that interactivity levels can vary across technology, communication settings, and individuals' perceptions. Technological interactivity is postulated to be more stable than the other types because medium qualities are consistent until innovations are made to systems. In contrast, context and perceived interactivity levels oscillate more because they consist of communication content and participant perceptions, respectively. Communication context levels are probably the most volatile since content is discursive, particularly in interactive environments. User perceptions also fluctuate due to individual differences, inexperience in using computer communications systems, etc.

Before evaluating the operational definition, it would be advantageous to link the operational definitions with the conceptual definition established earlier. Visually, this manifestation might look something like this.

- - - Figure 2 Here - - -

Throughout this explication project, we have substantiated that interactivity is operationally composed of three components: properties of technology, attributes of communication context, and user perceptions. Each is equally important and combine to form the overarching concept known as interactivity. In contrast, interactivity can also be thought of along three dimensions that fuse together to form the broad concept or simply be considered discretely. However, neglecting any facet of the operational definition does not capture the full view of the theoretical construct. It appears that our operational definitions match well with our conceptual definition of the term. Speed (objective), range, and sensory activation are qualities associated with the structure of technology and can be used to estimate high and low levels of interactivity. Third-order dependency and social presence were fundamental aspects in the proposed theoretical definition and describe characteristics of communication context appropriately. Finally, basic interpersonal communication measures and telepresence apply to the conceptual definition because all are correlated to the simulation of face-to-face communication, a benchmark by which interactive communication is judged.

On the whole, the operational definition supplied herein not only describes the essence of the theoretical definition of interactivity but may also help broaden the concept's boundaries. In comparison to previous versions, the interactivity definition provided above is expansive, permitting for analyses across mediums and individuals.

Interactivity is understood as both a media and psychological variable. In addition, interactivity is offered here as a variable that can be examined along its discrete dimensions or as a single, composite variable. Thus, scholars can be as specific or general as needed in their inquiries.

CONCLUSION

The convergence of new technologies blurs the boundaries between traditional and new media. For example, the Internet is often seen as a hybrid system of TV and text. Similar to this merging, interactivity conceptions need to be integrated into a hybrid definition. From this analysis, we have shown the significance of devising conceptual and operational definitions that embrace interactivity as a media and psychological variable. To restate, interactivity can be defined as:

> the degree to which a communication technology can create a mediated environment in which equal participants can communicate (both one-to-one and one-to-many) as close to real-time as possible and participate in reciprocal message exchanges (third-order dependency). With regard to human users, it additionally refers to the ability of users to perceive the experience to be a simulation of interpersonal communication and increase their awareness of telepresence.

Operationally, interactivity is established by three factors: technological structure of the medium used (objective speed, range, & sensory complexity), characteristics of the communication settings (third-order dependency & social presence), and individuals' perceptions (proximity, perceived speed, sensory activation, & telepresence). Hence, we have outlined definitions that have coalesced the most important elements of prior conceptions into a concise framework. It is hoped that this explication has granted a clearer picture of interactivity and how it might be studied in future investigations. As more new media proliferate, other concepts in mass communication will have to be adjusted and refined. The expansion of knowledge awaits.

Notes

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[1] It is important to recognize that these steps represent one method for explicating a concept and is by no means exhaustive. Chaffee (1991) further articulates this point by arguing that the steps outlined in his book "can serve as a checklist for the researcher explicating a concept, but it is not a recipe that guarantees results" (p.14).

[2] These three factors refer to "the rate which input can be assimilated into the mediated environment"; "the number of possibilities for action at any given time"; and "the ability of a system to map its controls to changes in the mediated environment in a natural and predictable manner" (p.85-86) respectively.

[3] Telepresence is the degree a media user feels their mediated environment takes precedence over their physical environment.

[4] Before continuing, two caveats must be mentioned. First, please note that the rules expressed are to be used for specific observation in an experimental environment. Other methods might require a different set of rules. Second, due to the lack of empirical work on interactivity, the rules created here are derived from combinations of theoretical and positivistic discussions.

[5] This by no means should indicate that we reject interactivity's application in interpersonal communication but rather feel such applications should be rooted in a different interpretation of the concept than the one employed here. For our purposes though, it is the simulation of interpersonal communication that is crucial and not the actual process itself.

[6] The term "he" shall be used (at times) when referring to the researcher in this stage of the explication. It is by no means a judgment on the talent of female scholars. It is merely a convenient term due to force of habit. Indeed, I have had positive experiences with both male and female researchers and aspire to make no distinctions in my scholarly work.

[7] Channel traffic would inevitably play a role in this measure, and might be considered a characteristic of communication context, but this hypothetical analysis presumes that the capacity to overcome channel traffic lies in the structure of technology and is thus a measure of the medium.

Tables & Figures

TABLE 1: INTERACTIVITY DEFINITIONS

		Intellectual Perspective		
		Communication	Psychology	Computer Science / Design
Object Emphasized	Technology			
	Communication Setting			
	Perceiver			

TABLE 2: INTERACTIVITY DEFINITIONS

		Intellectual Perspective		
		Communication	Psychology	Computer Science / Design
Object Emphasized	Technology	Steuer (Mapping) Durlak (Sensory-richness)		Schneiderman (System functionality) Hutheesing (Message delivery)
	Communication Setting	Wiener (Cybernetic theory) Williams (Mutual discourse) Bretz (3rd-order dependency) Rafaeli (3rd-order dependency)		
	Perceiver	Newhagen et al. (Perceived interactivity)	Leary (Interpersonal simulation) Turkle (Humanistic interactions)	Schneiderman (Learning speed) Norman (Mapping)

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Figure 1: Dimensions of Interactivity

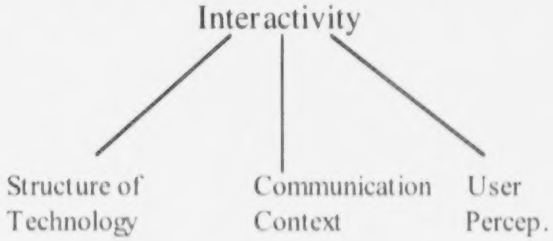
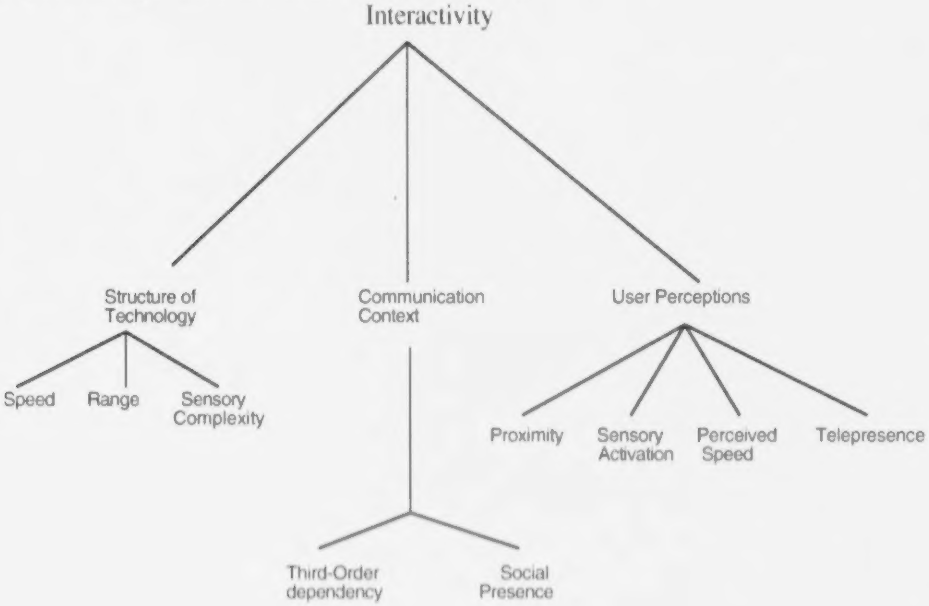

Interactivity
Structure of Technology
Communication Context
User Percep.

Figure 2: Operationalization of Interactivity


Interactivity
Structure of Technology
Communication Context
User Perceptions
Speed
Range
Sensory Complexity
Proximity
Sensory Activation
Perceived Speed
Telepresence
Third-Order dependency
Social Presence

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PRIVACY, SECURITY AND INTELLECTUAL PROPERTY:

PROPRIETARY INTERESTS OVER THE INTERNET

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ABSTRACT

PRIVACY, SECURITY AND INTELLECTUAL PROPERTY: PROPRIETARY INTERESTS OVER THE INTERNET

The Internet presents a kind of tradeoff between incredible gains in economic, political, and social opportunities, and corresponding losses in privacy and intellectual property rights. While it offers exciting new ways to communicate and collect, market, and deliver information, some of the online information is considered proprietary. Who has the right to access, collect, use, and exploit this online, digital material?

This paper provides an overview of the online issues and policies associated with privacy, security, and intellectual property rights on the Internet. It first explores privacy and security and then examines intellectual property, providing an analysis of reactions at the individual, organizational, national, and international levels.

PRIVACY, SECURITY AND INTELLECTUAL PROPERTY:

PROPRIETARY INTERESTS OVER THE INTERNET

The Internet creates new issues and poses new questions when it comes to online security and privacy rights. Individuals have come to enjoy the opportunities of online socializing, community activism, education, and shopping, yet fear they are losing their privacy to businesses and government agencies able to take advantage of the Internet's enhanced tracking and record-keeping capabilities. The economic efficiencies of mass commercial emails are weighed against the privacy concerns of recipients. The prospects for e-commerce and the needs of law enforcement are also simultaneously weighed against interests in encryption and security. While some nations have already created online privacy policies, the United States grapples with a political hotbed of privacy and security issues, debating whether to create new laws or rely on industry self-regulation.

Intellectual property rights also face similar conflicts. The Internet affords authors and creators expanded opportunities to share, publicize and exploit their works, while making it much easier for others to steal, manipulate, and distribute the proprietary material. Legal protection serves to encourage the development of more intellectual property and a free flow of information, which is socially, politically, and economically desirable in a democracy and market economy. Existing legal principles and precedents may certainly govern many of the rights and responsibilities, but digitized information and online distribution present new challenges and uncertainties.

The Internet essentially presents a kind of tradeoff between incredible gains in economic, political, and social opportunities, and corresponding losses in privacy and intellectual property rights. While it offers exciting new ways to communicate and collect, market, and deliver information, some of the information is considered proprietary. Who has the right to access, collect, use, and exploit this online, digital material?

Because these interests and the Internet are rapidly evolving, this paper offers an overview of the online issues and policies associated with privacy, security, and intellectual property rights over the Internet. It first explores the issues and legal dimensions of privacy and security, followed by a similar review for intellectual property. An analysis of reactions at the individual, organizational, national, and international levels follows.

Privacy and Security

Internet security and privacy rights are leading topics of concern among consumers and prompting some of the most intense policy debates in the U.S. and abroad. In the 1970s, about one-third of Americans said they were worried about threats to personal privacy (Dorney, 1997). Today, over 80 percent are concerned (Allard, 1998), saying that

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privacy protection is "important" or "very important." At least one study indicates privacy is the number one issue among online consumers (Tweney, 1998).

In general, studies show people are troubled by such matters as public access to personal and corporate data from online databases and government access to private information (Lawton, 1998). Specific complaints range from the collection and transfer of private data identifying buying habits, to the development of programs that can access or monitor personal files, and the invasion of junk e-mail or "spam." The concerns are not unfounded. One study by the Federal Trade Commission discovered that many Web sites collect personal information from users and release the information without the users' knowledge or permission. Other studies reveal that more companies are accessing employee email files while the incidence of unsolicited email is increasing at alarming rates. The development of full-scale e-commerce and other Internet growth opportunities may be hindered when many people choose to steer clear of the Internet, citing personal privacy concerns as their single biggest reason for staying off-line (Allard, 1998). Nearly one in four Americans say they would use the Internet more if their privacy was protected ("You are," 1998), and nearly two-thirds believe Internet privacy legislation is needed ("Net Surfers," 1998).

The Right to Privacy

"Privacy" is a very broad concept that has many meanings and definitions (Lee and LaRose, 1994). Westin (1967) was among the first to study the nature of privacy, defining privacy as "the claim of individuals, groups, or institutions to determine for themselves when, how, and to what extent information about them is communicated to others." Others have defined privacy as an interest in managing transactions or interactions (Margulis, 1977). Still others have considered privacy to include a desire to control inputs from others (Altman, 1975) and maintain freedom from surveillance and unwanted intrusions (Burgoon, 1982).

A "right to privacy" is relatively new and not well-articulated in the law. There is no right to privacy expressly provided for in the United States Constitution, although privacy interests are found in some provisions such as the Fourth Amendment, which forbids searches and seizures by the government without a warrant. Not until 1965 did the Supreme Court recognize a fundamental "right to privacy" inferred from the Bill of Rights (Griswold v. Connecticut, 1965). Today, courts will generally consider a fundamental privacy right based on such factors as whether there is a "reasonable expectation of privacy." Privacy rights grounded in the Constitution, however, protect individuals from intrusions by the

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government, not by private parties.

A number of state and federal statutory laws serve to govern the interception, collection, use, and distribution of certain types of information by either government or private parties. The Electronic Communications Privacy Act of 1986 (ECPA) and many similar state wiretapping laws protect against unauthorized interception and disclosure of electronic communications while in transit or storage. The Privacy Act of 1974 provides limited privacy protections against government collection and disclosure of certain personal records held in government-maintained databases. Other laws that may serve as models or indirectly affect privacy and the Internet include: the Fair Credit Reporting Act (1970) (governing the disclosure of information by consumer credit reporting agencies), the Right to Financial Privacy Act (1978) (restricting government access to financial institution customer records), the Telephone Consumer Protection Act (1991) (prohibiting unsolicited commercial faxes), the Telecommunications Act of 1996 (limiting the use of customer proprietary network information by common carriers), the Cable Communications Policy Act of 1984 (restricting the collection and disclosure of subscriber information), and the Video Privacy Act of 1988 (restricting the disclosure of information about video tape rentals).

Finally, privacy rights may be found in common law, protecting against the conduct of private parties. This type of law can be traced back to a famous law review article published over a century ago which recognized "the right to enjoy life—the right to be let alone" (Warren and Brandeis, 1890). Since then, the courts have recognized four widely accepted privacy torts: 1) misappropriation of a name or likeness for commercial purposes, 2) publicity that places a person in a false light, 3) public disclosure of embarrassing, private facts, and 4) intrusion upon seclusion or solitude (Prosser, 1960; Restatement, 1977). Here, the courts will generally consider such factors as whether the privacy invasion was "highly offensive to the reasonable person." Each of these torts has implications for Internet privacy.

Privacy Dimensions and Issues

In the context of the Internet, several dimensions of privacy interests emerge:

1) Freedom from intrusion of unwanted information into one's personal space,
2) Freedom from surveillance and improper access by others,
3) Autonomy over personal information collected and disclosed by others, and
4) Anonymity

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1) Intrusion

The first dimension focuses on concerns such as "spam" or unsolicited commercial email (UCE). Spam is becoming a major concern among Internet service providers (ISPs) and users. Up to one-fourth of all messages handled by ISPs is thought to be junk mail. Companies complain it clogs the network, increases Internet costs, and reduces employee productivity, while many users complain spam is a nuisance and an intrusion into their system, demanding that it be stopped. In the meantime, spammers enjoy this new opportunity to reach thousands of potential customers at little or no cost, essentially shifting advertising costs to ISPs and recipients. The extent to which spam is a form of "trespass" or recipients are "captive audiences" is not yet clear. Several court cases have considered spam as trespassing onto proprietary networks. One model for legislation may be the Telephone Consumer Protection Act of 1991 (TCPA), which prohibits sending unsolicited advertisements to fax machines because of the unfair cost-shifting to consumers.

2) Surveillance/Improper Access

The second dimension concerns improper monitoring and tracking as well as interceptions and computer hacking. Employee email monitoring, the use of "cookies," and encryption fall under this category. Employee email monitoring concerns arose in the early 1990s when employees at Epson American, Inc. and Nissan were fired after discovering and complaining about supervisors reading their email (Lee, 1994). At that time, a survey of large and small companies found that over 40 percent had searched employee email files (Piller, 1993). The Electronic Communications Privacy Act (1986) prohibits the interception of electronic communications and therefore applies to private email over the Internet, although it may not protect email within intracompany networks. Internet service providers may disclose information with the originator's consent. They may also intercept, disclose or use any communication while engaged in an activity that is part of the normal course of business such as performance control checks. As a result, systems operators and employers may monitor employees' email provided that employees are given prior written notice that their email may be monitored in the normal course of business (Lee, 1994). Several lawsuits have emerged, and more companies now post policy statements indicating that email on company-owned systems is not protected.

Another privacy controversy centers on a unique characteristic of the Internet called "cookies." Cookies are essentially small strings of text characters that are sent to a person's hard disk via his or her browser while visiting a Web site. The cookies store certain pieces of information about the person which are passed back to the Web server when the

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person returns to the site. Cookies and other similar tracking systems are meant to help consumers by remembering preferences and eliminating repetitive tasks such as signing on. But cookies also place information on one's personal hard disk and function largely without one's knowledge. They also pose a privacy concern as they track usage history and preferences, eventually building detailed user profiles (Randall, 1997).

Data security is another prime concern among Internet users, who fear their messages and files will be broken into or intercepted. Strong encryption standards are demanded by users and required by online companies offering such services as banking and Internet stock trading which need guaranteed data integrity in order to survive. A 56-bit data encryption standard (DES) has sufficed since the 1970s, but a 128-bit standard is now coveted, particularly since the Electronic Frontier Foundation and Distributed Net demonstrated they could crack a 56-bit DES encrypted message in less than 23 hours ("Encryption," 1999).

Probably the biggest problem facing encryption is the conflict between individual and corporate security needs and the needs of law enforcement and national security. With greater security comes more opportunities for drug dealers, terrorists, and other criminals to shield their communications from the law. U.S. policies to restrict encryption have garnered the support of law enforcement and the wrath of privacy advocates and industry. Only recently has the U.S. begun to back down, relaxing its 1996 policy that required U.S. vendors exporting strong encryption software to make duplicate keys available to law enforcement. The administration now says vendors can ship products with keys as long as 56 bits without a license or "key-recovery" plan to as many as 45 countries for use by insurance, health and medical companies and online merchants ("FAQ," 1998; Bureau, 1999). The policy change still prohibits stronger encryption, such as 128-bit, which has yet to be broken. In the meantime, other countries have put pressure on the U.S. to further ease its export restrictions.

3) Autonomy

The third dimension relates to the desire to control the collection, compilation, and transfer or sale of one's personal information to others. This includes the desire to keep one's name and other tracking information off of marketing lists, for example. Data integrity also comes into play, where personal data maintained by others is expected to be secure, with limited access to others. These types of privacy issues are not new, but with the Internet, the potential for infringement and the magnitude of concern have increased.

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In terms of data collection, private entities such as banks, insurance companies, department stores, credit card companies and credit reporting agencies maintain extensive databases of information on individuals that can be compiled, cross-referenced, and potentially used in a discriminatory manner. Government agencies also collect information through social security records, tax payments, medicare payments, and military records. Individuals are often not aware that the information is collected, to what extent or how it is used. Likewise, they may not know whether or how they can access and correct their records.

Subsequent distribution of personal data is also a concern, particularly when it is done for financial gain and for purposes other than the purpose for which it was collected. Once consumers are aware of the practice, however, their complaints may attract attention. A noted case involved American Online selling its subscriber contact information, financial information, and information about Internet activities (Wang, Lee and Wang, 1998). Another case that gained national notoriety involved Lexis-Nexis database service which began selling personal information about citizens, even though the information was pulled together from publicly available sources (Richards, 1997). In yet another case, a class action suit was brought against American Express, which gathered and sold data on cardholders' spending habits. But because the court reasoned that the information was given by cardholders voluntarily, the claims were dismissed.

There is no single statutory law or policy that regulates the collection, use, and distribution of personal information. The ECPA (1986) prohibits the intentional disclosure of the contents of a personal electronic communication intercepted or reviewed while in storage by system operators, employers and the like. The Privacy Act of 1974 restricts government collection and disclosure of personal records, requiring that the data be relevant and accurate, and that individuals have the right to review, copy, and correct the information as well as control disclosure. The Act does not govern collection and disclosure by private parties, however. Specific policies already exist pertaining to financial, insurance, employment, education, health and medical records, but individuals must otherwise rely on industry self-regulation when it comes to the collection and distribution of other types of personal information. The Federal Trade Commission is, however, considering drafting policies governing the privacy of consumer data.

Other related information autonomy concerns may be addressed by existing privacy common law, resulting in civil suits. For example, if information is gathered over the Internet in such a way to be "highly offensive to the reasonable person," the tort pertaining to "intrusion upon seclusion" would apply. Tort law would also address the publication of embarrassing but true personal information that a scorned lover might spread over the Internet. If the image of a person is merged with offensive text, sounds, or other images, the tort of "false light" applies. Misappropriation of someone's name or likeness for commercial purposes is also recognized as a privacy tort. Here, a Web advertisement that intentionally features a model "resembling" a movie star could constitute misappropriation. Another example might include the Internet practice called "spoofing," which is the impersonation of a return-address in order to encourage recipients to view the contents.

4) Anonymity

The fourth dimension relates to a basic privacy interest in surfing the Web and communicating online anonymously. Anonymity is particularly useful for whistle-blowers, political and religious dissidents, shy individuals, and others who simply want to avoid a backlash of emails (i.e., sales calls) or having their personal data collected or movements tracked. Researchers from Vanderbilt University found that 94 percent of Web users have refused to provide information to a Web site, and 40 percent have given fake information. Indeed, people have come to expect a degree of confidentiality in private correspondence and telephone calls, and this expectation may carry over to the Internet (Lee, 1996).

Yet anonymity can also serve as a cloak for online harassers, pornographers, terrorists, and other criminals. The Supreme Court has recognized a First Amendment right to speak anonymously, but says a ban that is limited to fraudulent, false, or libelous speech may pass constitutional scrutiny (McIntyre v. Ohio Elections Commission, 1995). At least one state has unsuccessfully banned anonymous and pseudonymous online communication ("Ban on anonymous," 1997), yet several states recently enacted statutory laws forbidding false headers and misleading subject lines in unsolicited commercial email. Whether ISPs have an obligation to preserve subscribers' anonymity is also in question. When a Navy investigator contacted American Online to find out the name of a sailor who had identified himself as gay, he was given the name of a U.S. Navy senior chief petty officer who was subsequently discharged. Privacy advocates questioned whether or not there was a violation of the ECPA (1986) which bars the release of customer information without a subpoena, court order, or customer consent. As a result, ISPs are taking greater strides in preserving online identities.

Responses To Privacy/Security Issues

Even though privacy and security concerns appear as largely an individual matter, the impacts and effects are certainly felt in the business, national, and international arenas where a variety of responses are being considered.

Individuals

At the very basic level, it is the individual who obviously bears the brunt of the privacy invasions, potentially losing a significant measure of information autonomy and anonymity. But to what extent might individuals be able to retain their privacy while reaping service benefits? There are many questions to consider. For example, to what extent do individuals have a proprietary right in their personal data collected by others? How might users technically maintain anonymity and data security? Who will bear the costs of protecting privacy online? Is spam an intrusion into proprietary systems or upon captive audiences who unfairly bear the costs? What are the available legal and technical recourses?

While some legislative bills, agency policies, and civil suits are testing the legal waters, many individuals are resorting to various self-help means. For example, individuals are learning to delete or disable cookies using certain technological tools and software options. They are also turning to (sometimes free) anti-spam software filters and encryption software such as PGP ("Pretty Good Privacy"). Other technological solutions include anonymous remailers and "anonymizers," which give consumers control over their personal data by stripping away personally identifiable information, and pseudonymizers, which create an artificial identity. Some promising technological opportunities include the Platform for Privacy Preferences (P3P) and Trustlabels, which permit consumers to automatically determine the privacy policies of a particular website and then choose whether or not to interact with or accept cookies. With P3P, users can select their privacy preferences, and P3P will warn them if they try to access a website with a privacy policy that falls outside these preferences. Trustlabels go a step further by prompting users to accept or reject individual cookies whose trustlabels fall outside the user's privacy preferences. All of these solutions give users greater control, effectively preventing the surreptitious collection and use of personal information. More individuals are also becoming better educated about data collection practices and avoiding emailing or giving out personal information. Assuming a more active role and complaining or boycotting offending businesses is also having some effect.

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Organizations

At the organizational level, industry plays a major yet delicate role in the privacy equation, hoping not to alienate potential customers while seeking to maximize consumer data. How far can businesses go technically, legally, and ethically? To what extent must industry provide notice that data are collected? Must businesses afford people an opportunity to access, change, or determine the distribution of their personally identifying information? How far can businesses go in monitoring or tracking customers and employees online? Do companies have a First Amendment right to distribute unsolicited commercial email?

The industry response in the wake of a groundswell of privacy complaints and potential legislation has been a resounding promise to regulate itself. Various industry coalitions and associations devoted to online privacy have formed, pledging to gain and restore consumer trust. The Online Privacy Alliance, for example, is a coalition of 50 Internet companies committed to fostering privacy online and engaged in certifying companies that abide by Alliance privacy policies. TRUSTe is a program that provides a third-party "trustmark seal" which allows Web publishers to inform users of their site's gathering and dissemination practices, assuring users and providing a dispute resolution mechanism (www.truste.org). The Association of Accredited Advertising Agencies (AAAA) has also issued privacy goals for electronic commerce aimed at ensuring full disclosure of marketers' practices and the "appropriate" use of personal information.

In general, more Internet sites are posting privacy policy statements explaining how the data are collected, used, and disclosed. Greater strides are also being made to limit the use of the data and ensure accuracy. Some specific strategies include giving adequate notice such as "cookie prompts," which alert users that their Web site wishes to place a cookie on their browser. Marketers are also offering opt-in and opt-out features to consumers reluctant to reveal information. Others are even offering incentives such as free online services in exchange for consumer data—essentially recognizing and paying for the value of the data. Still others are pulling back and practicing restraint by not selling consumer lists, avoiding spam, and limiting monitoring practices.

National

At the national level, legislators and other policy-makers juggle an onslaught of consumer complaints, industry pleas for self-regulation, and international pressures for conformance. The arguments raise a host of political, economic,

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and social questions. For example, what role should government play in preserving privacy interests while promoting a marketplace economy? Is privacy a commodity to be bought and sold in an open marketplace? Should there be more legislation protecting privacy, or will industry self-regulation work? How can a balance be achieved across commercial, privacy, law enforcement and national security interests? How might U.S. policies come into compliance with stricter international privacy policies?

Despite a number of federal and state bills ("Electronic," 1999), U.S. Internet privacy policy-making has primarily taken a "wait-and-see" approach in favor of industry self-regulation. U.S. policy-making has tended to support marketplace solutions, relying on legislation as a last resort. So it is not surprising that the White House formally called for industry self-regulation of Internet privacy. Now the effectiveness of this approach is being debated, with such agencies as the Federal Trade Commission announcing guidelines and scrutinizing the industry's response. Privacy advocates argue that the industry response has been inadequate and that without enforcement, privacy objectives will not be achieved.

Pressure from the European Union and others is also sparking some reaction. The European Union's Directive on Data Protection, which went into effect late 1998, grants European citizens control over personal data and demands that foreign governments—including the U.S.—provide equal data protection under a similar regulatory structure. Countries that fail to adhere to the standards may be banned from doing business with the EU. This puts both U.S. industry and the government in a precarious regulatory position. Some regulatory promises have been made, but proponents suggest they may not be enough. In the meantime, some U.S. companies are entering into contracts with European companies that provide the necessary protection in order to continue conducting business, effectively treating European customers differently. The U.S. Department of Commerce and the European Commission have also considered a "safe harbor" for self-certified U.S. companies voluntarily adhering to the principles.

The U.S. is also responding to international and domestic industry pressures to revise its encryption policies. The Administration's policy of restricting encryption exports is considered outdated and counterproductive, putting U.S. industry at a competitive disadvantage relative to its foreign counterparts. U.S. lawmakers face three basic choices when regulating encryption technology. First, they can do nothing, giving both consumers and criminals free access to these products. Second, they can bar encryption that the government cannot break, forcing private parties to use weak forms of

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encryption, rendering them vulnerable to security breaches and effectively stunting the growth of electronic commerce. Finally, a compromise approach may be followed, whereby strong encryption is allowed, but with some type of government access to keys (Allard, 1998). In late 1998, 33 nations agreed to the Wassenaar Arrangement (www.wassenaar.org), which bans the export of encryption software with keys of 64 bits or longer. Nonetheless, some countries such as France have liberalized their encryption policies to allow 128-bit encryption. So far, the U.S. response has been to loosen its restrictions to permit the exportation of 56-bit encryption.

International

Considerable progress has been made in securing privacy rights in some parts of the international community. With the European Union's Directive on Data Protection and other countries' privacy initiatives, many foreign citizens may enjoy greater control over their personal data than U.S. citizens. The policies are generally in sync with the social, political, and economic philosophies of the concerned countries where privacy is viewed as a fundamental right (Wellbery, 1997). Yet, how will enforcement occur when the Internet has no national boundaries? Can U.S. privacy policies co-exist? How will international conflicts be resolved?

Over a decade ago, the EU began an inquiry into the impact of technology on society, ultimately creating its Directive on Data Protection in 1995 which went into effect three years later. The EU Directive grew out of a need to harmonize the national privacy laws of the 15 member nations. It requires companies wishing to use personal data to first obtain permission, explain the specific purpose, and allow people to access and correct their personal data. The directive gives EU commissioners the right to prosecute companies and block Web sites if they do not adhere to the data privacy standards (Baker, 1998). Furthermore, the data legislation prohibits the transfer of personal data to a third party country unless that country ensures comparable protection for the data. Other countries such as Hong Kong are following Europe's lead, adopting similar laws.

Intellectual Property

Digital information and the Internet present special challenges when it comes to preserving intellectual property interests. Online information can be much more easily copied, edited, morphed and otherwise manipulated, and a digital copy may be virtually flawless. It can also be instantly distributed to a worldwide audience at little or no cost. In the

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meantime, the source of the infringement may be untraceable, making enforcement and prosecution extremely difficult.

Based on the many infringement lawsuits filed in the last few years alone, billions of dollars are being lost to problems such as software pirating, domain name hijacking, and the unlicensed distribution of copyrighted music. In fact, the Software Publishers Association says online copyright infringement is a $13.2 billion annual problem (Packard, 1998). Intellectual property rights may be implicated when someone forwards email, downloads Web pages, uploads copyrighted photos, swaps files, scans photos, copies a web page, incorporates a movie clip, and posts links. The magnitude of the problem comes into focus when one considers, for example, that most of the text, images, sounds, and software communicated online consist of copyrighted material. Authors and creators presume traditional intellectual property laws apply in cyberspace, while the growing number of online users and infringers either do not understand intellectual property interests or believe their actions are somehow permissible, forgivable, or undetectable in the relatively new territory of the Internet.

Intellectual Property Rights

Intellectual property essentially encompasses the intangible mental work products of authors and creators, and includes writings, trade symbols, processes, and secrets. Unlike most tangible goods, information rights exist separately from any particular copy of the information, permitting the owner to maintain rights to the work while distributing copies. Property rights may also be spread across several individuals or organizations. For example, with a Web site, one person may own the rights to a photograph posted, another person may have the publicity rights to his or her image in that photo, while yet another owns the patent rights to the GIF compression technique used. Someone else may have the rights to the recording of the music bed, while someone else may own the rights to its composition. Still, another individual may have pulled the elements together while that person's employer ultimately controls the rights to the site design and its domain name.

Unlike privacy law, intellectual property law in the U.S. dates back to the Constitution and the nation's founding fathers who established a concept of protection for authors and inventors by granting them exclusive rights in their writings and discoveries for limited periods of time. The U.S. Supreme Court has recognized that protection draws upon the economic incentives to ensure continuing innovation and the promulgation of creative works. Today, information

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rights essentially permit owners to control access to their work and its use, copying, and distribution.

Common law actions such as misappropriation and unfair competition address some intellectual property interests, and there are also some applicable state statutory laws. Most intellectual property interests, however, are governed by federal statutory laws, such as the Copyright Act of 1976 (as amended), the Digital Millennium Copyright Act (1998) and the Lanham Act (as amended). Other countries have similar laws and there are a number of international treaties, such as the Berne Convention, which address the preservation of rights across borders.

Intellectual Property Dimensions and Issues

Although there are intellectual property interests addressed as trade secrets, misappropriation, and unfair competition, intellectual property rights will primarily within the following areas of law: 1) Copyright, 2) Trademark, and 3) Patent.

1) Copyright

Copyright is governed by the Copyright Act of 1976, which protects "original works of authorship" (section 102a). Among the types of work granted copyright protection are literary and musical works, pictorial and graphic works, motion pictures and other audio-visual works, and sound recordings. Copyright protection was extended to software in 1980 and online, digital recordings in 1995. Essentially, email and other online text are protected, as well as certain compilations of data (databases), WAV files, GIF files, and other audio-visual elements. What is not protected under copyright law is factual information such as domain names, digital signatures, URL addresses, and encryption keys, as well as ideas, short phrases, and titles. The facts within a database are not copyrightable, for example, but the selection, coordination, and arrangement of the material may be copyrighted (Feist Publications, Inc. v. Rural Telephone Service Co., 1991).

The law requires the work to be "fixed in any tangible medium of expression," which has posed some concern for online information. Essentially, information stored on computer disk or CD-ROM qualifies, and even information stored briefly in RAM may meet the definition (MAI Systems Corp. v. Peak Computer Inc., 1993; Triad Systems Corporation v. Southeastern Express Co., 1994). Information transmitted "live" over the Internet, however, is not afforded protection unless it is simultaneously fixed.

Copyright owners have the exclusive right to control their work, including the ability to make copies and

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derivative works, as well as distribute, display and perform the work publicly. Here, the Internet poses unique challenges to users who may easily and even unwittingly infringe on these rights. For example, simply viewing a work online requires one to copy it in RAM, technically constituting a copyright infringement. While a 1980 copyright law amendment permits the owner of a *copy* of a software program to copy the program into RAM, the law does not address online transmissions where no physical copy exists. Thus, without consent or implied license, browsing a Web site or downloading an email attachment could be against the law.

Users may also be more tempted to lift and modify pictures, HTML code, and available material to incorporate into their own Web sites, only to be infringing on the original authors' rights to make derivative works and adaptations. The Internet also makes it easy to forward email, technically violating the author's right to distribute his or her work. At least one court has indicated that allowing subscribers access to copyrighted pictures over a computer bulletin board constitutes an unlawful display (Playboy Enterprises, Inc. v. Frena, 1993). In addition, playing someone else's video over the Internet might infringe a performance right. In fact, the Digital Performance Right in Sound Recordings Act of 1995 specifically protects sound recordings performed publicly via digital audio transmission.

Copyright owners' rights are not absolute, however. The Copyright Act recognizes a number of exceptions, permitting some use of materials without permission. Aside from noncopyrightable facts, ideas and short phrases, individuals can use any material deemed to be in the public domain. This occurs when a work is created by the federal government, when copyright protection is waived or vacated, or the term of the copyright has expired (lifetime plus 50 years for individuals and 75 years for corporations and works for hire, with longer extensions now permitted). Also, works may be copied if there is "implied license." For example, putting up a Web site essentially presumes and may therefore permit users to copy the contents to their RAM in order to view it (Religious Technology Center v. Lerma, 1995, albeit involving trade secrets). Although debatable, providing links to a copyrighted site should not result in liability if the linked sites' home pages are the destinations (Sovie, 1998). Copying short, insignificant portions of a work may also be permitted, although this depends on the quantity and quality taken of the particular work.

Copyright law also considers "fair use" to be an exception, which applies to such uses as teaching, scholarship, research, news reporting, criticism and commentary. Here the law considers the purposes and character of the use; the nature of the copyrighted work; the amount and substantiality copied; and the effect of the use on the market or value of

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the work. For example, if the copying is for educational purposes, very little is taken, and there is no market impact on the original, then the action may be permitted as fair use. The courts construe fair use narrowly, however. For example, no fair use existed when photographs from a magazine were digitized and offered online for a fee (Playboy Enterprises, Inc. v. Frena, 1993) and when entire documents were posted with little added criticism (Religious Technology Center v. Netcom, 1995).

One particular copyright concern has been the liability of ISPs which carry infringing material. The Digital Millennium Copyright Act (1998) relieves ISPs from liability for infringements where the ISP essentially serves as a conduit and does not financially benefit from or is unaware of the infringement, or upon actual knowledge acts expeditiously to stop the infringing activity. The law also frees service providers from liability for caching (temporarily storing material on the system's server) and linking to material that is infringing (Packard, 1998).

In most countries including the U.S., information is automatically protected by copyright from the moment it is created. Thus, a simple email message is essentially protected by copyright. Affixing a notice and registration with the U.S. Copyright Office is not necessary, although it can help dissuade copying, and registration permits an infringement suit for more than actual damages. Copyright infringements are filed as civil suits, although criminal penalties can apply if infringements are willful and for commercial or financial gain. Yet, the No Electronic Threat (1997) makes it a crime to copy or distribute copyrighted software, music recordings, and other creative works with a retail value of more than $1,000, regardless of any direct financial profit. The law essentially protects software, music recordings, and other creative products easily pirated over the Internet. The Digital Millennium Copyright Act (1998) makes it a crime to possess and use tools that remove copyright protection mechanisms from software and digital media.

2) Trademark

Trademark protection applies to words and symbols used to distinguish particular goods and services. This includes words and phrases such as "United Airlines," pictures or icons such as the McDonald's arches and Mickey Mouse ears, numbers and letters such as MCI and 3M, as well as abbreviations, nicknames and even colors. Trademark in cyberspace applies to domain names and online services such as Yahoo, as well as existing products and services advertised online.

Trademark allows consumers to clearly identify a good or service with its source and reputation for quality and

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value. Infringement occurs when another party uses the same or similar mark in that market, creating a likelihood that consumers may be confused as to source or sponsorship. For example, an individual offering unauthorized copies of Sega games over the Internet would likely cause consumers to erroneously believe the games came from Sega (Sega Enterprises, Inc. v. MAPHIA, 1994). A likelihood of confusion is not the only criterion, though. The Federal Trademark Dilution Act of 1995 provides trademark owners relief even if there is no product or service competition or confusion, provided the other mark somehow dilutes the former's mark. Dilution includes "tarnishment" of the mark, essentially done in an immoral or otherwise unappealing way. For example, Hasbro, the maker of the children's game CandyLand, successfully sued a company based on this theory when the company used the domain name "candyland.com" for sexually-oriented products (McDonald, Reich and Bain, 1997).

The owner of a trademark has the right to use the mark relative to specified goods or services in a particular market. Trademark protection applies only within the market it is recognized, whether a town, state, region, or nation. Therefore, it is possible for many "Al's Autoparts" to exist across the country, for example, each enjoying trademark rights within their respective markets. Expanding the business into new communities can pose trademark problems where similar goods or services with the same mark are offered. Trademark rights go to whomever was first to use the mark; conflicts may otherwise be negotiated or a new mark created. This has serious implications for online use, where creating a website advertising "Al's Autoparts," now gives this business global reach, easily infringing on others' trademark rights in their respective communities locally and abroad.

Trademark law has particularly been an issue is the areas of domain names and Web site links. Domain names present a unique trademark problem in cyberspace. Domain names are alphanumeric addresses for Internet sites and often consist of trade names. This can lead to disputes where companies with similar names but offering different products or services in different parts of the country battle over the rights to a single, abbreviated domain name. In addition, some people quickly secure domain names of well-known companies in the hopes of selling the name at a later date. For example, Microsoft is suing two men for registering the Internet domain names microsoftwindows.com and microsoftoffice.com. Calling them "cybersquatters," Microsoft complained that the men had also registered domain names such as AirborneExpress.com, AlamoRentalCar.com, AssociatedPress.com, and Hollywood-Video.com. Network Solutions, Inc. had the monopoly in domain name administration and developed a policy of requiring applicants

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to certify that they would not infringe on the tradename of others. A new, nonprofit corporation called the Internet Corporation for Assigned Names and Numbers (ICANN) is taking over, however, which may mean some procedural changes.

Another problem implicating trademark is the linking of one Web site to another (Maloney, 1997). In Washington Post Co. v. TotalNews, Inc. (1997), the latter provided a link to the Washington Post Web site while displaying the site within the TotalNews frame which obscured the Post's advertising and URL. The Post sued under the Federal Trademark Dilution Act of 1995, but settled out of court. Whether or not providing links or pulling a remote site into a frame is a dilution is not clear (Maloney, 1997).

Trademarks (and servicemarks) are obtained by applying the marks to the goods (or services) so that they are prominently displayed, and by using the marks in commerce. No registration is necessary in the U.S., although under the Lanham Act (1946), registration with the U.S. Patent and Trademark Office (PTO) gives the mark nationwide rights and allows owners to sue infringers in federal court. Trademarks may be federally registered if they are distinctive and used in interstate or foreign commerce. The strongest and most secure trademarks are those that are highly distinctive (i.e., Alta Vista and Lycos) and unrelated to the nature of the product (such as Amazon.com and Sega). It is possible, however, for more generic names (i.e., American Online) to acquire distinctiveness after five years of exclusive use. New products or services such as software and online services may need specific trademark protection, even if the original good or service is already trademarked. It is possible to register in advance of intended use and hence reserve a trademark. Trademark registration only provides protection within the respective country, however; registration must be obtained in each and every country where protection is desired.

3) Patent

Patents are issued to a person who invents or discovers a new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement. Unlike copyright which is limited to expression, patent provides protection for the invention itself (or its functionality). Abstract ideas or laws of nature are not eligible for a patent, nor are methods of doing business or printed matter (which may otherwise qualify for trade secret protection or copyright) (Ellis, 1998). In addition, mathematical algorithms used in computer programs are not themselves patentable; however, the Supreme Court has ruled that utilization of algorithms in an original and useful computer program may rise

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to the level of a patentable invention.

A patent is a grant by the federal government to an inventor, giving him or her the right to exclude others from making, using, selling the invention throughout the country for a limited period of time. A patent provides a strong basis for licensing the technology to others. A patent also protects against the creation of similar versions or obvious improvements. Hence, an updated or enhanced computer program that simply manipulates more calculations or handles more accounts would not be patentable (Ellis, 1998).

There are two kinds of patents applicable to the Internet: utility patents, covering functional innovations in products or processes, and design patents, covering ornamental aspects of an article of manufacture. In both cases, to achieve a patent, an invention must be patentable by definition, useful, and truly novel. Utility patents must also be nonobvious.

Utility patents may apply to computer software, which was previously considered unpatentable. Now, the PTO and the courts recognize software patents if the software is characterized as a machine for performing certain functions or a process that manipulates or physically changes some physical structure. For example, certain interactive functions and interfaces, communications protocols, data compression techniques, and encryption techniques may be protected by patent law. One recently awarded patent, for example, was for an online system called "attention brokerage" created by CyberGold Inc., which lets Web users earn money by clicking on banner ads and corporate Web sites. Utility patents provide strong protection, giving the user an exclusive right to the idea embodied in the software, not just the code itself, therefore preventing competitors from creating new code to perform the same function (McDonald, Reich, and Bain, 1997).

Design patents can be obtained for computer screen icons, according to PTO guidelines (McDonald, Reich, and Bain, 1997). With respect to graphical user interfaces, design patents can provide stronger protection than copyright. Design patents will not cover functional aspects of a display or GUI, however.

Patents are granted through the Patent and Trademark Office pursuant to the Patent Act of 1952. Unlike other intellectual property registrations, the process usually takes two or more years, sometimes costing several thousand dollars. Notice must be affixed or damages for infringement may be limited. Falsely marking an item as patented is against the law. Utility patents expire 20 years after being filed, while design patents last 14 years from the date of

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issuance. Patents issued in the U.S. are not recognized in other countries. To protect inventions in other countries, applications must be filed separately.

Responses to Intellectual Property Issues

The rights of authors and creators are certainly impacted by Internet intellectual property issues, but so are the interests of potential users and creators. Individuals, industry and national and international policy-makers are responding in a number of ways.

Individuals

At the individual level, interests range from demanding maximum intellectual property protection for personal creations, to seeking flexible protections and exceptions in order to access and use the works of others. There are many questions that are only sometimes answerable by existing law. The basic questions are, who exactly owns what information? What rights do they have? What rights do non-owners (users) have? How do the traditional laws apply to the Internet?

From the standpoint of intellectual property owners, the questions expand to how the information can be protected and how its value should be exploited. For example, how might implied license or fair use negate a copyright? Which owner of a trademark has priority when online advertising causes an overlap in markets? How can a mark now be used online without infringing on others' trademarks in the U.S. or abroad? To what extend can an existing interface or compression technique be incorporated into new software without infringing existing patents?

While some copyright holders are refraining from online distribution, more actively registering their copyrights, or limiting access and use to paid subscribers, others are jumping on the Internet bandwagon and offering their information for free in exchange for viewing advertising or as an inducement to buy more information or other goods or services. Some people with trademark interests are adopting highly distinctive marks to avoid potential territorial disputes over trademark as well as registering for trademark in advance of intended use and using the mark on the Internet to obtain national rights. Where conflicts arise, some owners are unfortunately negotiating rights or changing marks altogether, oftentimes at considerable expense.

More individuals are interested in intellectual property rights as potential users, however. In this sense, they are concerned about what information can be used without infringing owners' rights. How can users find out if a work is

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protected? When do fair use and other exceptions apply? When is permission implied or required?

The initial excitement of the Internet prompted many authors and creators to provide their works online for free. As a result, many users have come to expect valuable information at little or no cost, with little effort, and with little or no negative consequence. Many individual users mistakenly believe that copying, using and distributing online material is either permissible, tolerable, or essentially undetectable. However, more publicity of infringement cases and prominently displayed notices are causing more potential infringers to pause. While the average user does not understand intellectual property law or its implications, more are paying attention, particularly since knowledge of the law is not a requisite for a successful copyright infringement lawsuit. More are also turning to the Internet for answers, using various search engines and available databases to quickly find out if any information is proprietary or in the public domain. Seeking permission through the Internet itself is making the process much easier, quicker, and less expensive.

Organizations

Industry and other organizations face the same competing interests as both owners and users of intellectual property. As with individuals, the same basic questions apply. Yet with more invested and deeper pockets, the stakes for businesses are much higher. Companies also face additional concerns. For example, what are the liabilities of ISPs when subscribers infringe intellectual property rights? Might overly broad patents prevent interoperability between programs? Are there technological means or self-regulatory approaches that can be developed to address problems?

When it comes to collecting damages, ISPs are easy targets for lawsuits because they are more easily located than individual infringers and are well-capitalized. ISPs may escape direct liability, but may be liable for contributory or vicarious infringement--well-recognized doctrines applying standard tort law concepts (Maloney, 1997). In response, the industry has lobbied hard for the Digital Millennium Copyright Act (1998) which now provides some protection. Still, ISPs are being more careful in regard to monitoring their services, since liability still applies if it can be shown that the ISP had knowledge of the infringing action, could have controlled it, or financially benefitted.

When it comes to patent rights, there is a fear that broad patents might prevent programs from being able to interface or work together. As a result, interoperability is hindered and the development of new software is stifled. The market will not accept programs that do not adhere to certain standards, and designing around the patents may be impossible without infringement. Some patent owners resort to injunctions while others demand royalties, costing

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prospective developers millions of dollars. In the meantime, computerized patent databases are helping businesses track patent activity to avoid problems. In some cases, patentees are focusing their enforcement efforts on suppliers, rather than company end-users. Nonetheless, organizations need to be aware of using software from a vendor that did not secure a suitable license.

In response to the many challenges of a digital, online world, some organizations are working toward joint licensing or contractual limitations on use of works on the Internet, and others are developing technology that would permit practical enforcement of these limitations (Maloney, 1997). For example, in Frank Music Corp. v. CompuServe (1995), plaintiffs sued CompuServe, alleging copyright infringement of 947 songs that subscribers were uploading and downloading without permission. The suit was settled with the grant of a license to upload or download musical works (Maloney, 1997). Other organizations have established Internet licensing schemes, which ensure copyright holders are fairly rewarded for the use of their works. For example, the Copyright Clearance Center now licenses articles and pictures on the Internet, and Broadcast Music Inc. (BMI) provides a blanket license to an ISP called Onramp (Packard, 1998). Some even envision a pay-peruse system, whereby users would license from a publisher each and every time for access to and use of protected works. This has implications for the need for the sweeping concept of "fair use" if immediate licensing of every work is possible.

National

At the national level, lawmakers are listening to, debating, proposing, and enacting various legal remedies in response to intellectual property concerns raised by both owners and users as well as the international community. How can conflicts over trademark rights be resolved domestically and internationally, as more individuals and businesses go online? How can the works of authors and creators be protected and encouraged while furthering a free flow of information? Should more regulation be created or should solutions be market-driven?

The White House has assumed a fairly active role in examining the issues, creating several initiatives, and issuing reports such as its 1995 White Paper. The administration encouraged the adoption of the World Intellectual Property Organization (WIPO) Treaties and endorsed limitations on devices designed to circumvent copyright protection. Congress has likewise been active, putting these and other recommendations into law, such as the Digital Millennium Copyright Act, (1998) and the No Electronic Threat Act (1997). In addition, a number of bills have been offered, addressing such matters as database protections and the misappropriation of collections of information. National organizations such as Network Solutions, Inc. have also attempted to resolve problems like the battle for domain names, where more subdomains or suffixes are being created to alleviate conflicts.

International

The international community is faced with the problem of reaching consensus and uniformity in protection and enforcement across borders. A variety of social, political, and economic factors contribute to the differing types of protections available in each country. For example, Europe has historically recognized the existence of moral rights, which has not gained support in the U.S. On the other hand, policies in the U.S. are more likely to be driven by marketplace interests in the free flow of information. The sociological, political and economic effects of cross-border information flow must be considered as national barriers are broken down by the Internet. Can international conflicts over rights be resolved? What protection is there for information copied and distributed in another country? In which countries must registration be obtained in order to receive protection? How might trademarks, copyrights, and patents be enforced internationally?

Different international policies have only created confusion among intellectual property owners and users. For example, users are discovering that works created by other governments are not necessarily in the public domain as government works are in the U.S. Moreover, works that fall into the public domain in the U.S. may still be copyrighted in another country, making online availability difficulty. Trademark rights may be infringed in other countries once the trademark is available globally on the Internet. Even policies regarding Web caching vary, as the the Internet Society is urging the European Parliament to ease provisions of a directive that would make Web caching illegal.

Despite the various approaches, several international treaties have been successfully created to establish minimum standards for protecting works across borders. The Berne Convention, for example, extends a country's copyright protection to foreigners whose works are infringed in that country. In addition, the Agreement on Trade-Related aspects of Intellectual Property Rights (TRIPS), effective 1995, was a major development with regard to harmonizing intellectual property rights. Over 100 countries signed on to TRIPS, which recognizes software as literary works and protects certain compilations of data.

Two 1996 World Intellectual Property Organization (WIPO) treaties--the Copyright Treaty and the

Performances and Phonograms Treaty--addressed literary and artistic works in cyberspace, and were ultimately incorporated into U.S. law (Digital Millennium Copyright Act, 1998). They encouraged nations to provide effective remedies against technologies designed to defeat protections. A controversial measure considering RAM as potentially infringing copyright was dropped (Maloney, 1997), as well as a proposed treaty to provide protection for non-original databases. More WIPO conferences are being held to negotiate international policies, including the 1999 International Conference on Electronic Commerce and Intellectual Property, addressing the impact of electronic commerce on intellectual property.

Conclusions

Information over the Internet has considerable value, whether it be a personal data profile, a Web document, software, or a tradename. Companies are able to easily target and reach customers, information providers are able to distribute their content quickly and globally, and users are able to enjoy a wealth of information at the touch of a mouse click. Yet there are also varying degrees of proprietary interest existing in this online, digital information. These proprietary interests are manifested in such rights as privacy, copyright, trademark, and patent, which recognize the rights to maintain autonomy, and control access, use, copying, disclosure, and distribution.

The Internet presents new challenges when it comes to balancing these proprietary interests against the competing interests of users in a democratic, market economy. Interests in a free flow of information must be balanced against intellectual property rights and the desire to stimulate new intellectual property development. Perhaps one of the most challenging public policy issues of the information age is balancing the benefits realized by data collection, distribution, and monitoring with the privacy rights of individuals. Adding to the difficulty is the changing nature of these interests relative to the rapidly evolving Internet. For example, marketplace forces, social pressures, or new laws may shift the privacy balance back, or individual privacy expectations may change and adapt. Likewise, the free nature of the Internet has been changing the dynamics of intellectual property rights, although shifts toward a pay peruse system may further change the nature of the debate.

The stakes are high in the trade-off between Internet market opportunities and intellectual property and privacy rights. How to achieve a balance is a challenge facing individuals, organizations, and national and international policy-makers, as the Internet and interests in privacy and intellectual property evolve. While the courts struggle to understand the nature of the Internet and how traditional guidelines fit, lawmakers are considering new laws and international agreements. It is vital that industry self-regulation, legislation, education, and technological solutions be coordinated to ensure a framework satisfactory to all.

Online Sources

As these issues evolve, some online sources for further information about privacy and intellectual property rights include:

Electronic Privacy Information Center: www.epic.org
Internet Privacy Coalition: www.privacy.org/pi
Consumer Project on Technology: www.essential.org/cpt/cpt.html
Center for Democracy and Technology: www.cdt.org/
Electronic Frontier Foundation: www.eff.org/

American Intellectual Property Law Association: www.aipla.org
Copyright Clearing Center: www.copyright.com
Intellectual Property Owners: www.ipo.org
International Trademark Association: www.inta.org
U.S. Patent and Trademark Office: www.uspto.gov
U.S. Copyright Office: lcweb.loc.gov/copyright/
World Intellectual Property Organization (WIPO): www.wipo.org

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Examining Information Processing on the World Wide Web Using Think Aloud Protocols

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Abstract

A substantial literature indicates that whether or not learning takes place depends on how information is processed. Theorists have argued that the Web encourages individuals to process information efficiently and effectively, producing meaningful learning; however, critics have claimed that Web navigation often results in disorientation and thus can inhibit learning. This study examined the processing of information conveyed via the Web, using think aloud protocols and a newly-developed quantitative coding scheme based on existing theory.

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Examining Information Processing on the World Wide Web Using Think Aloud Protocols

Although research on mass media effects in the United States has focused primarily on the ability of mediated messages to influence attitudes and behavior, the dependent variable that has most consistently proved sensitive to message influence is knowledge. Put more concretely, media messages are more likely to affect what we know than either how we feel or how we act.

It should not be surprising, then, that the advent of a new medium–the World Wide Web–is prompting research on the extent and nature of learning from information presented on Web sites. This paper attempts to make an early contribution to that body of research by studying how individuals process information encountered on Web sites.

Mere exposure to instructional content is rarely sufficient to produce meaningful learning, nor is motivation to learn a direct cause of learning. Instead, it is the processing of information, done by individuals, that creates the connections among discrete bits of information in memory, connections that in turn lead to deeper understanding of concepts and relationships.

Few studies have attempted to measure the prevalence of different types of information processing using observational methods. Instead, most studies experimentally manipulate information processing to determine effects (Craik & Tulving, 1975; Hamilton, 1997; Johnsey, Morrison, & Ross, 1992; Mayer, 1980; Pressley, McDaniel, Turnure, Wood, & Ahmad, 1987) or attempt to measure information processing and its effects through self reports (e.g., Eveland, 1997a, 1997b; Kardash & Amlund, 1991; Perse, 1990; Salomon, 1981, 1983; Schmeck, Ribich, & Ramanaiah, 1977; Weinstein, Zimmermann, & Palmer, 1988). While these are certainly useful approaches to the study of information processing, they do leave out direct assessment of naturally occurring variation in the processing of information over time or across content.

The purpose of this paper is to delineate how individuals process information presented to them via the World Wide Web. Some theorists have suggested that the design of hypermedia

systems, such as the Web, can facilitate useful information processing activities that lead to learning; others have noted that some information processing problems are exacerbated on the Web. We will begin by reviewing theory about information processing in learning generally and then specifically in the context of the Web. Then, in order to describe the processing of content on the Web–and to determine the correlates of different types of processing–we will report the results of an observational study of information processing using think aloud methods (Ericsson & Simon, 1993) in the context of the science information on the World Wide Web generally and one particular science Web magazine, The Why Files <http://whyfiles.news.wisc.edu>.

Information Processing and Learning

Researchers began studying the general process of human learning long before the World Wide Web came along. Although perspectives on this topic have changed over the years, one conceptual framework has become common in cognitive psychology. This general approach has been called the "information processing" perspective (see Hastie, 1986; Kellermann, 1985) because it is loosely based on the computer as a metaphor for human information processing.

We have chosen to employ this model in the current study because: (1) it arguably is and has been the most prevalent model of human learning over the past several decades; (2) it has been subjected to numerous reviews by communication researchers (e.g., Kellermann, 1985; Reeves, Chaffee, & Tims, 1982) and, thus, is likely to be more familiar to researchers studying learning from the media; and (3) it is easier to understand and explain without reference to cumbersome mathematical computations than are some other, more recent (i.e., connectionist) models. Despite substantial differences, many of the models of human cognition, including the information processing model, share some common assumptions, concepts, and theoretical

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expectations. Thus, our use of the information processing model does not necessarily preclude the interpretation of our results in light of other models of human cognition. Below we will briefly summarize the major points of the information processing model.

Most versions of information processing theory employed by experimental psychologists include *at least* five key components: a sensory store, short-term memory, long-term memory, an executor, and a goal specification box (Kellermann, 1985; Reeves et al., 1982; Wyer & Srull, 1986). The *executor* controls the processing of information in memory based on the goals stored in the *goal specification box* (Hastie, 1986; Kellermann, 1985; Reeves et al., 1982; Wyer & Srull, 1986). The *sensory store* collects all of the information that a person is exposed to and thus is available to the senses, but it is stored there for only a very brief time. Some of the information from the sensory store may enter what has been called *short-term* or *working memory* (Baddeley, 1989; Cowan, 1993; Shiffrin, 1993) through the process of attention. This memory store can hold information for a longer period of time than the sensory store, and it is where information that is "in use" is processed. It is for this reason that some have simply called this memory store "work space" (Wyer & Srull, 1986). The final component of human memory is *long-term memory*. Information in long-term memory may be retained for much longer than information in the sensory store or short-term memory, and indeed information stored there may never disappear. When old information is retrieved, it is thought to move from long-term memory to working memory for processing. This movement, along with the movement of information from the sensory store to working or long-term memory, is in large part determined by the plans used by the executor to process information based on the goals provided by the goal specification box.

Many researchers have argued that information in long-term memory is stored in the form of schema that are (more or less) well-defined and (to a greater or lesser degree) connected

through an associative network (e.g., Collins & Loftus, 1975; Rumelhart, Lindsay, & Norman, 1972; Wicks, 1992). For example, a new piece of information may be stored in a physical location in long-term memory, with connections between it and information to which it is conceptually linked. These connections, however, are dependent upon how the information is processed both initially and subsequently, as new links with existing nodes in the memory structure may be added at any time via the act of *cognitive processing*.

Cognitive processing refers to the general act of movement or manipulation of both old and/or new information in memory. The first stage of processing new information is *attention* to the information available in the environment (e.g., Reeves, Thorson & Schleuder, 1986; Wicks, 1992; Woodall, 1986). Attention is the process through which a subset of information that is briefly available in the sensory store is selected and moved to working memory where it may or may not be more deeply processed (e.g., Anderson & Burns, 1991). The role of attention in learning is to move relevant information from the sensory store to short-term memory, while avoiding doing the same for irrelevant information. Information that is not attended to quickly fades from the sensory store and thus has little chance of being recalled later.

Beyond the attention stage, it has been argued that information retention is based in large part on the depth or elaborative manner of processing of that information (e.g., Berry, 1983; Craik & Lockhart, 1972; Craik & Tulving, 1975; Greenwald & Leavitt, 1984). The concept of the depth of information processing was most noticeably advanced by Craik and his associates (Craik & Lockhart, 1972; Craik & Tulving, 1975). In their initial discussion of this concept, Craik and Lockhart (1972) offered their levels of processing theory as an alternative to the common information processing notion of different memory stores. They argued that it was not the movement from one store (short-term memory) to another (long-term memory) that was

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related to recall; rather, it was the qualitative type of processing through which the information was put. They describe the differences between levels of processing as follows:

> Preliminary stages are concerned with the analysis of such physical or sensory features as lines, angles, brightness, pitch, and loudness, while later stages are more concerned with *matching the input against stored abstractions from past learning*; that is, later stages are concerned with pattern recognition and extraction of meaning. This conception of a series or hierarchy of processing stages is often referred to as "depth of processing" where greater "depth" implies a greater degree of semantic or cognitive analysis. After the stimulus has been recognized, it may undergo further processing by enrichment or *elaboration*.... Analysis proceeds through a series of sensory stages to levels associated with matching or pattern recognition and finally to *semantic-associative stages* of stimulus enrichment (Craik & Lockhart, 1972, p. 675, emphasis added).

Despite a general rejection of the levels of processing model as a replacement for the notion of a number of memory stores as had been argued for by Craik & Lockhart (1972), the idea of levels of processing and, specifically, the concept of elaboration that in part grew out of it (Anderson & Reder, 1979; Bradshaw & Anderson, 1982) have prompted substantial research across multiple disciplines over the past several decades. To some extent this may have happened because the concept of elaboration can be incorporated into many different existing models of human cognition, including the information processing model.

Experimental research in cognitive and educational psychology has consistently upheld the connection between elaboration and greater learning from stimulus materials (e.g., Hamilton, 1989; Mayer, 1980; Pressley, et al., 1987; Woloshyn, Paivio, & Pressley, 1994; Woloshyn, Willoughby, Wood, & Pressley, 1990). In their reviews of the literature, Estes (1988), Greene (1992), and Haberlandt (1994) all conclude that recall is greater when participants engage in elaborative rehearsal–making mental connections between new information and that already stored in memory–than when they engage in simple maintenance rehearsal, which involves repetition of information (e.g., repeating a phone number in your head) but little else.

In addition to experimental research, survey research by education and mass media scholars using college student and broader community samples in a number of countries has examined the link between self-reported elaboration and variables such as knowledge and academic achievement. Although space does not permit an examination of this literature in detail, there is ample evidence for a strong relationship between survey measures of elaboration/deep processing and knowledge of specific topics or academic achievement (e.g., Eveland, 1997a, 1997b; Kardash & Amlund, 1991; Perse, 1990; Schmeck, 1980; Schmeck & Grove, 1979; Schmeck & Phillips, 1982; Schmeck et al., 1977; Watkins & Hattie, 1981a, 1981b). In short, substantial research evidence, using both surveys and experiments in multiple contexts, suggests that elaboration is positively related to learning and knowledge acquisition.

Information Processing in the Context of Hypermedia and the World Wide Web

More than 50 years ago, Vannevar Bush (1945) proposed the creation of a machine called a memex that would allow instantaneous access to multiple sources of information through associational links. He believed that this machine would increase learning because it would function in the same way that individuals' brains worked–as an associative network. In Bush's vision, the information would be stored on microfilm and be presented on multiple viewers mounted into a large desk. The technology underlying this idea was later updated, and the resulting product was labeled "hypertext" by Ted Nelson in the late 1960s (Bevilacqua, 1989; Heller, 1990; Tsai, 1988-1989). The term hypertext is now being replaced by the term "hypermedia" because of the use of multimedia in many hypertext systems.

The defining feature of hypermedia is the use of nodes (packets of information, typically in the form of a "page") connected by links that may be easily traversed at the whim of the user

(Horney, 1991; Shirk, 1992). As such, hypermedia is distinguished from traditional media such as television and radio–as well as human teachers–by a high level of user control over the pace, order, and content of the medium, thus allowing use to be nonlinear or nonsequential (Duchastel, 1990; Horney, 1993; Shin, Schallert, & Savenye, 1994).

Nearly five decades after Bush's (1945) classic article, the idea of the memex–in the form of hypermedia–took the United States by storm in the guise of the World Wide Web (The Internet, 1997). The Web is, technologically, a massive hypermedia system (Astleitner & Leutner, 1995) created by thousands of different authors across the globe. Recent statistics on the popularity of the Internet and the World Wide Web reveal the massive growth in this medium over the past few years. A Harris Poll conducted in December 1997 and January 1998 (Taylor, 1998) revealed that more than one-third of all U.S. adults use the Internet. This compared to only 7% using the Internet in a similar Harris Poll in September 1995 (Taylor, 1998). Mediamark (1998) places the proportion of U.S. adults using the Internet at a more conservative 23%, an increase of 260% since they began tracking Internet use. While some of the discrepancy in estimates is likely a function of a lack of clarity in questions about use of the Internet (Does it mean use of the World Wide Web, use of electronic mail, or something else?; see Birdsell, Muzzio, Taylor & Krane, 1996), it is clear that a substantial proportion of the U.S. population is making use of this technology today, and that use has been increasing rapidly over the past several years.

Promises and Problems of Using Hypermedia for Learning

Theorists interested in the uses and effects of hypermedia frequently argue that the structure of hypermedia and the process of its use mimics the common conception of the associative structure of human memory and the function of information processing (e.g., Bieber, Vitali, Ashman, Balasubramanian, & Oinas-Kukkonen, 1997; Churcher, 1989; Jonassen & Wang, 1993; Kozma, 1987; Lucarella & Zanzi, 1993; Marchionini, 1988; Shin et al., 1994; Shirk, 1992). For instance, Jonassen (1988) notes that "because hypertext is a node-link system based upon semantic structures, it can map fairly directly the structure of knowledge it is representing." (p. 14) Claims such as these are used as theoretical evidence for the hypothesized superiority of hypermedia as a learning tool compared to other, more constrained and linear media that do not represent a knowledge domain so precisely. Churcher (1989) argues that "where hypertext is highly structured and indeed is the structure of the domain of knowledge and that structure/system is to eventually become the users' conceptual model it strongly suggests hypertext as a more effective learning environment." (p. 245) Thus, the argument made by many hypermedia advocates is that, because hypermedia can be designed to emulate the appropriate (based on domain experts) links among concepts in a particular knowledge domain, learners will more easily be able to build their own mental models from the model used in the hypermedia system (e.g., Churcher, 1989; Jonassen, 1988; Jonassen & Wang, 1993). In effect, in most theoretical approaches the user is assumed to employ the hypermedia system to shape his or her own mental representations of the domain of knowledge–both in terms of content and structure–thereby emulating the knowledge structure of the domain expert whose advice influenced the design of the hypermedia system itself.

However, some argue that there are important differences between the structure and use of hypermedia systems and those of human memory. For instance, Nelson and Palumbo (1992) argue that, in reality,

> At present, most hypermedia systems support linkages indicating only that one unit of information is somehow related to another unit of information, without specifying the nature of this relationship and a rationale for its existence....In contrast, human memory

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> supports a much stronger linking mechanism that both establishes a relationship and conveys information about the associational nature of the link. (p. 290)

Despite this and other criticisms of the conceptual ties between human memory and hypermedia, most hypermedia researchers who take a stance on the issue seem to agree that the similarities between the two are many and theoretically important.

While many hypermedia theorists focus on the benefits of using hypermedia for learning, there are others who see another, darker side of hypermedia. One of the most common concerns about hypermedia use expressed by these individuals is its propensity to cause disorientation, which in turn is likely to reduce learning and, potentially, even lead users to abandon the system altogether. From this perspective, the relevant metaphor for hypermedia is not human processing of information but navigation through unfamiliar physical space (Kim & Hirtle, 1995). Based on this metaphor and formal observations (e.g., Dias & Sousa, 1997) as well as informal reports of users, this perspective points out that people often get confused and even lost in virtual spaces with which they're unfamiliar, particularly when these spaces are poorly designed. To avoid getting lost, people must engage in orienting techniques, such as identifying landmarks and noting the relationship of one location to another. But, the effort spent orienting oneself to the information space–sometimes called cognitive overhead (Conklin, 1987; Thüring, Hannemann, & Haake, 1995)–consumes some or all of the cognitive effort that might otherwise be invested in more meaningful processing of the information that could generate comprehension and learning. Thus, from this perspective, hypermedia may potentially inhibit, instead of encourage, information processing activities that lead to fruitful learning.

Qualitative Forms of Information Processing on the Web

While some new technology theorists have suggested methods for categorizing cognitive processing during the use of technology (e.g., Duchastel, 1990; Hill & Hannafin, 1997), these categorization systems are generally not based on general theories of information processing and learning. For our purposes, then, we will focus on what we believe to be four basic, distinct, and meaningful categories of information processing that, in the information processing model, would all follow after attention to content had already been established: maintenance, orientation, elaboration, and evaluation. Maintenance, elaboration, and evaluation are all forms of processing information that one would expected to find in most forms of media use and in everyday activity; the same is true for orientation, although orientation is likely to be particularly prevalent for those using hypermedia systems such as the World Wide Web (or those navigating through unfamiliar physical space, like a professor visiting a new city for a conference).

The first type of information processing we will consider is *maintenance*. Simply put, maintenance is the repetition of information in short term memory. The quintessential example of maintenance is the mental rehearsal of a phone number or name over and over in an attempt to remember it. An important characteristic of maintenance is that it does not include any attempts to connect the information to existing knowledge or to interpret it in light of other information. As such, maintenance is not considered an effective form of information processing for learning.

The second type of information processing we will consider here is one of particular concern for those interested in the use of hypermedia systems: *orientation*. Kim and Hirtle (1995, p. 241) argue,

> While browsing a hypertext database, the user must carry out multiple tasks concurrently. These tasks can be clarified into three categories: (1) navigational tasks: planning and executing routes through the network; (2) informational tasks: reading and understanding contents presented in the nodes and their relationships, for summary and analysis; and (3)

> task management: co-ordinating information and navigational tasks (e.g., keeping track of digressions to incidental topics). Performance of these tasks exacts a high cognitive load upon the user.

It is the first and third of these cognitive activities that we here consider orientation. Orientation, while potentially useful for learning the overall structure of information (valuable only if the information is structured in a meaningful manner), also robs precious cognitive resources from other information processing activities that may be more valuable for learning, such as the third form of information processing.

The third form of information processing we will consider is *elaboration*. Perse (1990, p. 19) noted that elaboration of media content "relates the incoming information to existing knowledge and images and attaches connotative and associative meanings." In effect, elaboration is the process through which connections are made between new and existing bits of information in memory or between two or more existing bits of information (Hamilton, 1997). Elaboration serves to connect new information into existing schema as well as to create greater interconnectedness within schema. Both of these processes are integral to learning.

The final type of information processing we will consider is *evaluation*–assessing the value or worth of a given object or piece of information. Some researchers have suggested that evaluation should be considered an extension or a subset of elaboration (e.g., Gould, Trevithick, & Dixon, 1991), in part because nearly all evaluations require making connections to existing information like standards or exemplars. However, we argue that evaluation adds an affective judgment to any elaboration–that is, good or bad, true or false–that is not an essential feature of elaboration more generally. In effect, then, evaluations are elaborations that include an affective tag and should therefore contribute to learning.

Methods

Think Aloud Interviewing

The think aloud method has been most prominently advocated by Ericsson and Simon (1993). This small sample (but not qualitative) method requires participants to engage in some task and express the thoughts going through their minds as they do so. It is a non-directive technique, such that the only probe that is used after initial instructions is when participants stop verbalizing for some time, at which point they are simply reminded to think aloud.

The purpose of the think aloud method is to make visible at least some proportion of the cognitive activity that takes place during a given task. Researchers assume that the source of the think aloud output is information currently in short-term memory. By quantitatively coding the think aloud protocols based on theory, then, researchers should be able to develop a better understanding of cognitive processes. Like most other methods, the use of think aloud protocols has gone through a stage of attack by critics and defense by proponents (e.g., Ericsson & Simon, 1993; Kellogg, 1982; Nisbett & Wilson, 1977; Russo, Johnson, & Stephens, 1989; Smith & Miller, 1978; Turner, 1988; Wright & Rip, 1981). Responses to the critics generally have been persuasive, as the use of the think aloud protocols is accepted practice in research like that reported here conducted in fields such as educational psychology, geography, computer science, and engineering (e.g., Calvi, 1997; Carmel, Crawford, & Chen, 1992; Crampton, 1992; Darken & Sibert, 1996; Hill & Hannafin, 1997).

The Why Files Science Web Magazine

Our think aloud interviews, while concerned with the processing of scientific information on the Web generally, were also designed to help us evaluate the processing of the scientific information on The Why Files site in particular. Therefore, we began all think aloud participants

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on the home page of The Why Files. However, we were sure to explain to them that they were free to navigate through The Why Files to any other site on the Web by following links included in The Why Files.

In February 1996, the National Institute for Science Education (NISE) created The Why Files as a Web magazine designed to convey the "science behind the news." In connecting the science to current topics in the news, users' prior familiarity with the topics should not only increase interest in the science through relevance but also provide useful opportunities for elaboration of the science content to prior knowledge drawn from news sources and personal experience. The Why Files has received many awards in its first few years, including being named among the top 100 sites on the Web by both *PC Magazine* and *PC World* (Bannan, 1997; Cahlin, Lake, & Tweney, 1997).

Participants

In order to conduct our think aloud interviews, in the spring and early summer of 1997 a sample of Dane County, WI residents were contacted via telephone for a screening interview. The first question in the interview asked respondents if they had used the World Wide Web in the past month; those who did not were thanked for their time and the interview was discontinued. For those who had used the Web in the past month, several other questions were asked, including: personal interest in four different types of scientific information (scientific discoveries, medical discoveries, environmental issues, and new technology), each measured on a ten-point scale; and whether they had used the Web more than five times in the past 30 days or five times or less. The gender of each respondent was also identified. If the sum of the four science interest questions was 20 or greater, the respondent was asked to participate in the think aloud interview. Then, we selected equal numbers of high and low Web users distributed evenly among males and females. This left us with four high Web use males, four high Web use females, four low Web use males, and four low Web use females–all 16 of whom were at least moderately interested in science–who participated in our think aloud interviews.[1] At the conclusion of the session, each participant was paid $50 as a reimbursement for his or her time and travel costs.

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Procedures

Each participant was run individually in a session that lasted approximately 90 minutes. The procedure for our think aloud interviews was as follows: First, as suggested by Ericsson and Simon (1993), participants were put through several practice tasks to familiarize them with the process of thinking aloud. Specifically, they were asked to think aloud (see Appendix A for a copy of the think aloud instructions) while engaging in more and more complex tasks: mental addition of two 3-digit numbers, solving anagrams, and reading a brief article from a print magazine. The final practice task–lasting from five to fifteen minutes–was to surf a science-related World Wide Web site ("The Exploratorium"–http://www.exploratorium.com) in order to make the participant comfortable with our computer setup and with the process of expressing thoughts while engaging in a task very similar to the primary think aloud task.

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[1] The *respondents who agreed to participate* can be compared to *those who fit our screening criteria but refused to participate* as well as *respondents of a survey of repeat users of The Why Files* conducted approximately two months prior to the screening interviews. We provide this informative to confront any potential biases that willingness to participate, the local nature of the sample, and our selection criteria may have imposed. (See Appendix Table 1.)

The results of analyses indicate significant differences across the three subsamples in science interest and web use frequency, but not in gender. Our think aloud respondents are significantly *more* interested in science than those who refused to participate in the think aloud interviews, but they are significantly *less* interested in science than repeat users of The Why Files. Unfortunately, we do not have continuous data on the web use frequency of those who refused to participate in our think aloud interviews–only the dichotomous rating described above. However, by comparing repeat users to our think aloud participants on a ratio-level response option, we find a substantial difference in the number of times respondents had used the Web in the past 30 days, with repeat users of The Why Files being much more active Web users. Finally, while not statistically significant, there were meaningful differences between the proportion of females among repeat users of The Why Files users compared to our think aloud participants; this is most likely due to specifying an even split between males and females for our think aloud interviews despite the 70/30 male/female split in our study of repeat users of The Why Files.

From what we can tell by comparing on these few variables, then, it appears that there is bias in our think aloud participants in the direction of more females, less experience in Web use, and less interest in science topics. We might, then, expect to find more confusion and disorientation among our think aloud respondents than would be typical of repeat users of The Why Files because all of the factors that would contribute this outcome are disproportionately found in the think aloud participants. This potential bias should be considered when interpreting our findings.

The primary task for the think aloud interview was to surf The Why Files site using a Macintosh computer, either *Internet Explorer* or *Netscape* Web browser software (depending on the participant's preference), a 14" color monitor, and either a 14.4 modem or a direct Ethernet connection (depending on the participant's typical connection speed when using the Web). Although the task initially placed participants on the home page of The Why Files, participants were informed that they were free to navigate from there to anywhere on the Web that they pleased. The task lasted about 30 minutes for most participants.

An audiotape record was made of the complete interview, beginning with the first practice task. A videotape record was made of the facial expression of the individual during the practice and formal Web think aloud tasks. A videotape was also made of the images on the computer screen during this time using a direct feed from the computer. These two videotapes were then synchronized and combined into a single picture-in-picture tape that contained both audio (think aloud comments) and video (facial expressions) from the participant and a video image of the contents of the computer screen and mouse movements that the participant was seeing at the time. A transcript of the audio portion of the interview was used for unitization and categorization tasks. Because of a technical problem, there was no video information available for one of the participants (a low Web use male); thus, the final number of interviews analyzed was reduced to 15.

Operationalizations and Inter-Coder Reliability

Inter-coder reliability was assessed by having two trained coders (one of the researchers and a paid doctoral student) independently code–for unitization and categorization–the practice Web site think aloud protocols. For the *ratio-level* variables, Krippendorff's α (Krippendorff, 1980) was used as the measure of inter-coder agreement.[2] Many reliability statistics for nominal data that take chance agreement into account (an absolute necessity for any measure of inter-coder agreement) have been proposed (e.g., Cohen, 1960; Krippendorff, 1970, 1980; Perreault & Leigh, 1989; Scott, 1955), but there is no universally agreed-upon choice among them. In order to assess the reliability of the *nominal* variables in this study, then, three competing measures of inter-coder reliability were calculated–Cohen's κ, Krippendorff's α, and Perreault and Leigh's *I*.

Cohen's (1960) κ is probably the most widely accepted measure of inter-coder reliability for nominal data, but it has often been criticized.[3] Krippendorff's α (1970, 1980) is equivalent to Scott's (1955) π at the nominal level, and is a generalization of π to the ordinal, interval, and ratio level. To maintain labeling consistency with the reliability assessment for ratio-level variables, α was used instead of π for the nominal-level data as well. The difference between π and α, on the one hand, and κ, on the other hand, is in the method of calculating chance agreement. However, in our experience κ and α generally produce similar results for nominal data. Finally, Perreault and Leigh's (1989) *I* has been proposed as an alternative to Cohen's κ (and by extension, π and α); they argue (and at least some others agree; see Brennan & Prediger, 1981; Rust & Cooil, 1994) that "For a measure of interjudge reliability not to consider any agreement among judges on the marginal distributions [i.e., Cohen's κ] is not only conservative, but also potentially misleading." (Perreault & Leigh, 1989, p. 139) The I statistic eliminates this potentially conservative flaw (see also, Rust & Cooil, 1994).[4] Because of this disagreement among scholars as to the most appropriate statistic to measure inter-coder reliability, in subsequent sections we provide reliability estimates using each of the relevant statistics.

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[2] Krippendorff (1980) suggests that a value of α above .80 be considered reliable, while an α between .67 and .80 indicates that conclusions should be considered tentative. He also notes that these values are not written in stone and that the criteria may be relaxed for exploratory work.

[3] Landis and Koch (1977) indicate that values of κ between .61 and .80 be considered "substantial" agreement and values between .81 and 1.00 be considered "almost perfect" agreement.

Unitization of Thoughts. The raw transcriptions from the think aloud interviews were segmented into "thought" units. Typically, a thought may be operationalized as a sentence, a clause of a sentence, or a phrase. Sometimes a single word sentence may represent a thought. Non-essential verbiage such as "um" or "OK" was ignored as suggested by Ericsson and Simon (1993); an exception was when "OK" was clearly an indication of "I understand" and not just unnecessary verbiage. Explicit notations of "pause" and "long pause" inserted by transcriptionists unfamiliar with the goals of the project were one means of determining dividing points between thought units. Indications by transcriptionists of "reading to self" or the occasional phrase or sentence in quotation marks (meant to indicate reading aloud) were considered individual thoughts. Coders made use of contextual information such as the screen images and voice inflection of participants (from the picture-in-picture videotape) to determine when a participant was merely reading the content of the site. Any reading of the content (verbatim or slightly rephrased) not broken by a pause or non-reading verbalizations was considered a single thought. Two coders independently unitized all think aloud comments from the practice Web site task (Krippendorff's $\alpha = .86$).

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[4] In order to evaluate the values of I, which can vary from 0 to 1, Perreault and Leigh (1989) suggest that coefficients below .70 (for exploratory work) or below .80 (in more advanced research) should be interpreted to mean that coding reliability is low.

Categorization. Three categorical variables, plus one ratio-level variable, were coded for each thought unit. The three categorical variables were *information processing*, *source*, and *domain*. The final variable coded was the *number of words* used for the thought.

Information Processing. Information processing refers to the qualitative type of cognitive process suggested by the thought. The main categories of this variable were maintenance, orientation, elaboration and evaluation.

Maintenance was defined as the repetition of information without the incorporation of new information. It was operationalized as either verbatim reading aloud, description of content, or restating with slight rewording. In order to determine if content was being read, coders used information from the transcript, visuals from the videotape, and the tone and inflection of the participant's voice. All verbatim reading that was not prefaced by an intention within the same thought unit (e.g., "Let's try...") was considered maintenance.

Orientation was defined as expressed attempts to understand the content and structure of the information space, often taking the form of a rhetorical question or a prediction about content or structure. Orientation was also indicated by a statement of intention to navigate or seek particular information. When verbatim reading was prefaced (within the same thought unit) by "Let's go..." or "I want to see..." or some other similar phrase, this was considered orientation. Orientation codes were categorized as either neutral, as in statement of intentions and some rhetorical questions, as indicative of misunderstanding or disorientation (the participant didn't understand what he or she had done wrong or wasn't sure how to proceed), or as indicative of understanding or epiphany (when the participant figured out what he or she did wrong). When disorientation or epiphany was not obvious, the neutral code was used as the default.

Elaboration was defined as the integration or connection of current information or experience with content viewed elsewhere on the Web, personal experience, or stored knowledge. It was also represented by the participant answering a (rhetorical or literal) question posed by the Web content. Reference to one's personal interests was also considered elaboration.

Evaluation was defined as an affective response or judgment made about the content or structure and was coded as either negative or positive. Expressions of interest in the content or structure (either current or expectations of interest) were also forms of evaluation. In the case where the evaluation was a judgment about the accuracy of information in the site, a perception of accuracy was considered positive, while a perception of inaccuracy was considered negative.

In the extremely rare situation in which a given unit could fall under more than one category of this variable, a hierarchy of coding was used, such that orientation was always coded if present, evaluation was coded unless orientation was present, elaboration was coded unless evaluation or orientation was present. Maintenance was never coded if any other code was present. Inter-coder reliability for the information processing variable was .77 as measured by Cohen's κ, .76 as measured by Krippendorff's α and .88 as measured by Perreault and Leigh's *I*.

Source. The source variable represents whether the thought appears to have been generated by (1) The Why Files; (2) some other Web site; (3) the Web more generally; (4) the browser software; or (5) the computer hardware (computer, monitor, modem). If a referent was not explicit, the coder had to infer from the participant's current location based on the videotape or other contextual information. If the thought could be traced to the site content, it was coded as a site (Why Files or other site) reference; for example, an elaboration on site content, even if it refers to the Web generally, would be coded as a site comment. However, if a participant made a comment offhand, such as "I heard the Web has grown substantially in the past few months," and this seemed to have no connection to the content on the site, it was coded as a general Web reference. If the comment was a loose reference to structure or performance it was coded as a general Web source unless there was an explicit reference to the site or computer hardware. For example, the comment "This picture is very slow loading" would be coded as a site thought, but "This is why more people don't use the Web" when an image is loading slowly would be coded as a general Web thought. Inter-coder reliability for this variable was .64 as measured by Cohen's κ, .64 as measured by Krippendorff's α, and .98 as measured by Perreault and Leigh's *I*.

Domain. The domain of a thought refers to its focus, either content or structure. A content reference is defined as a reference to information, whether communicated via text or graphics. Reading of text was considered a content reference. A content reference was the default code; that is, if a structure reference could not be justified the thought was coded as a content reference.

A structure reference was defined as a reference to format or organization, whether it pertained to text, graphics, or higher-order concepts such as navigation or links between Web pages. So, comments regarding color, size, italics, etc. were considered structure references. When thoughts referred to the speed of loading a page or some other facet of navigation or linking, this was coded as a structure reference. Reading of a link title alone was considered a structure reference. However, when both text and link information were read aloud, the determination was based on whether the link that was read was then selected for navigation. If it was, it was coded as a structure reference; otherwise, it was coded as a content reference. Inter-coder reliability for the domain of thoughts was .72 as measured by Cohen's κ, .71 as measured by Krippendorff's α and .85 as measured by Perreault and Leigh's *I*.

Number of Words. The number of words was counted for each thought unit. Inter-coder reliability was very high at .99 (as measured by Krippendorff's α).

Results

The primary focus of the present study was descriptive and exploratory. We were interested in the cognitive processes used by those who were interested in science–both men and women, Web experts and Web novices–when they used World Wide Web generally, and The Why Files in particular.

As already discussed, all thoughts were categorized into one of four major categories: maintenance, orientation, elaboration, and evaluation. Comments classified as either evaluation or orientation were further classified into subcategories within the major category. As shown in Figure 1, our results (N = 2790) indicate that slightly more than 23% of thoughts were maintenance. These thoughts included participants literally repeating the information on the screen (both audibly and in barely comprehensible mumbles) as well as rephrasing that information in a slightly revised fashion. Thus, nearly one quarter of all thoughts were categorized as using a method generally considered ineffective for learning.

The majority of thoughts were of an orienting nature (39%). The number of orientation thoughts that could be classified as either disorientation (7% overall) or understanding (6% overall) were approximately evenly split, with the remainder classified as neutral (26% overall). Disorientation was indicated by comments such as "Oops, that's not what I meant to do," "I have no idea how to get the information that I want," and "Why did that take me back?" Understanding (or epiphany) was indicated by participants when they apparently solved a problem and thought "That's better," or "That should bring the image up." Neutral orientation

thoughts were expressed by one participant after (as described above) he had elaborated about a volcano he knew about; he said "I want to find out about the Mexican, Mexico City volcano." Another indicated neutral orientation when he thought "Let's see what else is in these Files," and "Let's go back to the File and see what else is here." These types of thoughts, although sometimes indicating success or at least not failure in navigating the content, do not generally indicate processing of information that is likely to lead to meaningful learning.

About a quarter of the thoughts expressed by the participants were elaborative. For example one participant, reading about potential causes of asthma, noted both that "I recently was in Saudi Arabia and met a woman who's concerned about asthma in children from air pollution there" and, regarding dust mites as causes of asthma, "People say they get in your beds and then you can't get rid of them." Another participant, while reading about mad cow disease, recalled "Someone told me that Oprah had a show on this, and the farmers were feeding the other cows parts of infected dead cows." Information about the impact of tornadoes on the natural landscape prompted one participant to remark: "I remember that one in 1977. Took down all those trees. I don't think they really called it a tornado, though." A fourth, upon reading aloud a statement from the site that indicated a large proportion of the mass of the universe isn't visible, reasoned "A lot of people would say that that explains why you can't see UFOs." All of these participants were connecting information from past experience or prior knowledge to information that they were exposed to in the site. As already noted, this process of elaboration is a powerful method of learning.

Relatively few thoughts were evaluative (13%), and these were divided evenly between negative evaluations (6% overall) and positive evaluations (7% overall). One particularly opinionated participant repeatedly vacillated between criticism of site design characteristics (e.g.,

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"that's boring," "really f---ing annoying," "that's stupid") and complements for the level of interest the site generated (e.g., "cool," "interesting"). In addition to issues of design, there were also thoughts about the veracity–or perceived lack thereof–of the information provided. One participant challenged the definition of a Latin word, then realized that he knew Spanish, not Latin, and therefore would not know the word's definition. Another, reading about the uses of solar energy to power airplanes, argued, "I've always assumed that you couldn't have a solar airplane, unless you made hydrogen gas first and burned that." Later, when the participant had linked to a government-funded site on alternative energy, he noted "I'm suspicious this is all propaganda instead of anything worthwhile. If it's put out by the government."

Most of the thoughts generated by the think aloud procedure referred to the content of the sites (78%) instead of their structure. Similarly, the source of the vast majority of thoughts was either The Why Files site (79%) or some other site (18.5%); only about 2.5% of comments pertained to the Web generally, the browser software, or the computer hardware.

Contextual Influences on Information Processing

Our exploratory correlational analyses examined relationships among our variables at the level of the thought (N = 2790). In these analyses, we were able to identify primarily contextual factors that appeared to have some influence on information processing.

There were two findings with important implications. The first was the significant relationship between the source of a thought and the type of information processing. An overall test of the differences in processing of The Why Files versus other Web sites was significant (c^2 = 19.47, p < .001). Individual logistic regression analyses indicated that thoughts generated based on The Why Files were significantly more likely to be classified as elaborative (log odds = 1.31, p < .001) and significantly less likely to be classified as maintenance (log odds = .89, p <

.05) compared to thoughts based on other Web sites.[5] The implication of this finding is that there should be greater learning of content from The Why Files than from other Web sites if elaboration is indeed a key variable contributing to learning.

The second finding that has potentially important consequences pertains to participants' evaluations. A logistic regression analysis of evaluative thoughts regarding The Why Files (N = 265) indicated that there was a much higher proportion of negative evaluations pertaining to the structure of The Why Files (73.6%) than to the content of the site (36.3%; log odds = 2.21, p < .001). This same pattern (though non-significant because of a small sample size–just 68) held for non-Why Files sites, with all of the structure evaluations but only 38.8% of the content evaluations being negative. This gives some indication that the World Wide Web medium–essentially hypermedia–may be causing some disorientation or confusion among its users that is independent of the content of the medium. These problems may be related to linking strategies, organization, and downloading problems as well as readability due to the use of poor color combinations and/or difficult to read fonts in some Web sites.

Individual Differences in Information Processing

Because we had conducted brief telephone screening interviews with our participants before their think aloud interviews, and because we kept track of several other variables before and during the think aloud sessions, we were also able to explore potential individual differences in information processing between participants. In order to do so, we computed the proportion of thoughts that each individual devoted to each qualitative type of information processing. These

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[5] The significance of this relationship is not simply a function of the large sample size. Using the proportion of thoughts devoted to The Why Files vs. other sources and the proportion of thoughts classified as maintenance or elaboration to test this relationship at the individual-level (N = 15), the same pattern holds and remains statistically significant (τ_b = -.50, p < .01 for maintenance and τ_b = .52, p < .01 for elaboration).

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values (one for each type of information processing) were then used in a data set with the individual as the unit of analysis.

Using non-parametric statistics, exploratory analyses (N = 15) found few if any significant relationships between the types of information processing and individual characteristics or contextual factors such as the brand of browser software used or the speed of the Internet connection used. We were particularly surprised to find that frequency of Web use (presumably an indicator of system expertise) was not a significant predictor of any type of information processing.

Considering the extremely small sample size, it should be of little concern (in terms of validity) that most relationships at the individual level were not statistically significant. There were a few exceptions to this pattern, however, that made conceptual sense and provide some evidence for the validity of our conceptualization, operationalization, and coding of information processing. For example, disorientation was more likely to be expressed by women (Mann-Whitney $U = 8$, $p < .05$) and those who required navigational help during the session because they effectively got "stuck" or "lost" (Mann-Whitney $U = 5$, $p < .05$). In addition, those participants with high levels of interest in science were more likely to express neutral orientation thoughts (Kendall's $\tau_b = .41$, $p < .05$), which indicates that they were more frequently seeking to understand what information on the topic was available and/or how it was organized in the Web site.

Discussion

This study sought to quantify the processing of science information on the World Wide Web using think aloud methodology. A large literature indicates that whether or not learning

takes place–from media or other sources–is largely based on how the information is processed. Theorists have argued that hypermedia systems like the World Wide Web encourage individuals to process information in a more efficient and effective manner because of the freedom they allow users to achieve fit with their own mental models and because the information can be structured in such a way as to make its presentation more closely resemble the true form of the knowledge domain. However, critics have pointed out that user navigation of hypermedia systems often results in disorientation, suggesting that the Web is not currently the panacea for learning that some would wish it to be.

This study was predicated on the assumption–supported in the literature–that certain types of information processing are more useful for learning than others. We developed a coding scheme to tap into the processing of information on the Web through the use of think aloud interviews and sought the prevalence of four types of information processing: maintenance, orientation, elaboration and evaluation. Two of our key findings are particularly worth reiteration here.

First, our 15 participants spent a substantial amount of time trying to orient themselves to the content and structure of the Web sites they explored. Getting lost or confused was not just a symptom of the naive user; rather, even those who defined themselves as frequent users of the Web spent a hefty proportion of their time floundering and trying to get their bearings within and across Web sites. Web critics note that such a heavy expenditure of effort on orientation may be a common byproduct of Web use and may inhibit learning. Since this think aloud study was cross-sectional, we are unable to reflect on how the acquisition of Web navigation expertise over time may affect the extent of orienting behavior.

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Second, there was variance across Web sites in the extent to which participants exhibited elaboration behaviors, the kinds of behaviors that theorists suggest should be most closely related to learning. Specifically, when participants were meandering through The Why Files, they exhibited more elaboration behaviors than when they visited other sites during the think aloud sessions. Our analyses do not yet permit us to link elaboration responses to particular elements of Web site content, but we feel that the structure and content of The Why Files may indeed be predictors. The site offers a strong narrative story line with an emphasis on good, provocative writing, and the text makes a determined effort to lure users from one screen to the next, an effort that seems to be successful, as audit trail data from the site suggest that those users who remain at the site for more than a couple screens typically move linearly through the narrative (Eveland & Dunwoody, 1998). If there is indeed a correlation between site characteristics and elaborative effort by users, that suggests that elaboration can potentially be encouraged by quality site design and content.

The greatest strength of this study was the development of a coding scheme for information processing activities during media use that is more closely based on existing psychological theory pertaining to learning than many of the existing schemes for categorizing Web information processing that appear to have been developed more inductively (Duchastel, 1990; Hill & Hannafin, 1997). This coding scheme, we believe, will make findings more easily and directly applicable to theoretical questions about information processing and learning from media and thus more appropriate for researchers from a number of fields.

Further, this coding scheme may be useful in the study of other media, such as television and magazines. Future research could profitably apply this coding scheme to other media, specifically by comparing processing of information presented on the Web with similar (or identical) information presented by paper (in the form of newspapers or magazines) or using some other linear medium like television. It is such a study that will ultimately be able to answer the question of whether or not individuals process information on the Web differently–either better or worse–than they do using more traditional media of communication.

The coding scheme designed for and used in this study may also be used to experimentally determine the impact of content and design features (both on the Web and in magazines) on information processing and learning. This could help answer questions such as: Might different linking strategies and site organization, different design cues like in-text links versus icons, or even different color schemes in different sections of a site influence how the information in the site is processed? Might different writing styles–such as the traditional inverted pyramid from newspapers, or more narrative forms often used in magazines–encourage or discourage different types of information processing?

This study was limited by its focus on scientific information, even though participants in our study did divert themselves to non-scientific information at times. It may be that the distribution of thoughts across the categories would have been different had we examined different Web content, such as entertainment sites or hard news sites. Future research should attempt to broaden the types of content to determine how information processing of media content may differ across genres of content.

In addition, over the long term the findings of this study–specifically those pertaining to orientation–are likely to change. This provides a wonderful opportunity to begin longitudinal research–using either a panel or repeated cross-section design–to study this process over time. In the late 1990s, it is likely that disorientation and a focus on orienting cognitions more generally is a function of at least three factors: (1) *socialization*: most people, including all of our participants, have been socialized to use linear media like books and television, and therefore are not trained in the use of potentially non-linear media like the Web, which can be more confusing because they require almost constant decision-making; (2) *expertise*: many people, including some of our participants, are not experienced with the World Wide Web in particular and thus needed to orient themselves; and finally (3) *design issues*: there is great variation in the quality of Web site design, and both the lack of quality design and the variation in quality can cause disorientation.

Over time, however, changes in all three of these factors may reduce users' focus on orientation cognitions substantially. As with socialization to television, there will soon come a time when children grow up with non-linear media like the Web and those children, when they become adults, should be less likely to be disoriented by non-linearity than are adults today. Similarly, as time passes and more and more people gain access to and make use of the World Wide Web on a regular basis, levels of expertise will increase to a high and uniform level, reducing much of the existing cognitive preoccupation with orientation. Finally, again as with television, as content providers (i.e., those developing Web sites) gain experience and learn through trial and error, the quality of Web site design should increase and become more uniform, further reducing the disorientation experienced by users at this time.

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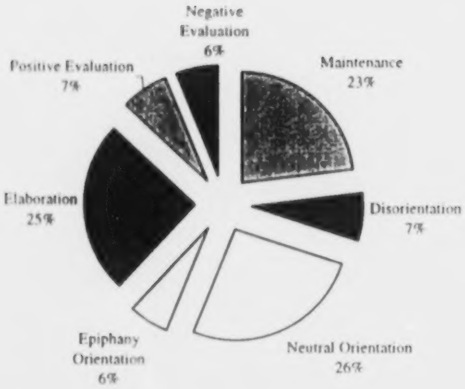
Appendix Table 1:
Comparison of Think Aloud Participants, Refusals, and Repeat Users of The Why Files

Sample	n[a]	Science Interest (Mean Rank)	Web Use Frequency (Mean Rank)	Percent Female
a) Users of The Why Files	397	222.67	188.07	31.5%
b) Think Aloud Refusals	19	78.95	---	42.1%
c) Think Aloud Participants	16	162.00	72.41	50.0%
c^2 (Kruskal-Wallis or Pearson)	---	27.69**	18.58**	3.18
Mann-Whitney *U* (a vs. c)	---	2242.5*	---	---
Mann-Whitney *U* (b vs. c)	---	90.5*	---	—

[a] The sample size varied slightly in the Users of The Why Files sample for each analysis due to missing values (no more than 7 in any one analysis), the value for n in the table represents the highest sample size in any analysis.

* = $p < .05$ ** = $p < .01$

Figure 1:
Distribution of Information Processing Types
(N = 2790)



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Appendix A:

Think Aloud Interview Instructions for Primary Task (The Why Files)

OK, now it's time to participate in the actual study. As I said in the beginning, I'd like you to look through a World Wide Web site called The Why Files. Please use this site just as you would if you had come across it while surfing the Web on your own. For instance, assume you had a half hour with nothing else to do so you decided to surf the Web. You can feel free to follow any links in the site that you are interested in, even if they take you outside of the site. You can take your time while using the site; there is no need to rush your reading or viewing. When you're finished, just let me know; others have spent between 10 and 30 minutes.

As with the other tasks, I'd like you to think aloud while you're browsing the site. Please say aloud everything that goes through your mind, leaving out nothing, no matter how trivial you may think it to be. You should say anything that you think, even if it is only a fleeting thought, including your impressions of the written or visual content of the site, thoughts of related information or past experiences, what you're expecting or looking for, and so on. There is no need to explain your thoughts, however; just express them as they come to you.

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Appendix B:

Summary of Domain and Information Processing Coding Typology

	Maintenance	**Elaboration**	**Evaluation**	**Orientation**
Content	Reading aloud; slightly rephrasing the content without adding new information	Making connections to prior knowledge, external information, or past experience	Expressing interest or disinterest; making judgments of the accuracy of info ***Additional code:*** **+ / -**	Asking rhetorical questions about the information available in the site
Structure	Stating the name of links before or as they are traversed	Making connections to past experience with other sites or other media formats	Expressing affect for the organization of information or non-content features of site ***Additional code:*** **+ / -**	Expressing confusion about navigation through the site; asking rhetorical questions about the structure of the site; synthesizing the structure of site ***Additional code: epiphany / disorientation***

C74P

Jung-Sook Lee Student Competition

Running Head: INTERNET PORNOGRAPHY

An Online Study of the Uses and Gratifications of Internet Pornography

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Abstract

An Online Study of the Uses and Gratifications of Internet Pornography

Despite the controversy over Internet pornography, relatively little is known about the consumers and the patterns of consumption of Internet pornography. This research investigated individuals' amount of consumption of Internet pornography, the types of Internet pornography consumed, and reasons for consumption. Data for this research were obtained from an online survey of 231 consumers of Internet pornography. Statistical results revealed that individuals did not consume different amounts of Internet pornography compared to traditional pornography; they favored the consumption of hardcore rather than softcore Internet pornography; and they viewed this material "to relieve sexual tensions" and "to enjoy sexual thrills."

An Online Study of the Uses and Gratifications of Internet Pornography

There has been a great deal of concern about the prevalence of pornographic material available on components of the Internet. In July 1995, a flurry of articles started appearing in U.S. media analyzing the dangers of the spread of pornographic material through the "global communications network" (now referred to as the Internet). One such article which appeared in the July 3rd issue of *Time* centered around a Carnegie Mellon study on the marketing of pornography on the "information superhighway." The study reported the growing use of the Internet to circulate sexually explicit pictures among computer users and children in particular, hence intensifying pressure on the United States Congress to censor the material (McNair, 1996; Elmer-Dewitt, 1995).

The anti-pornography sentiment, long associated with a conservative, moralistic U.S. political tradition (Thompson, Chaffee, & Oshagan, 1990), was being directed toward regulating the Internet, now vilified as just another channel for pedaling pornography. But were critics of the Internet overreacting?

In the 1990s, the Internet has increasingly been used by producers and consumers of pornography, initiating new problems for those who desire to regulate such material (McNair, 1996). These concerns led to numerous proposals and efforts to regulate the Internet, whether through out-right censorship and regulation, age verification software, or increased parental awareness. Many news stories that followed the 1995 Carnegie Melon study acknowledged that "cyberporn" was a major dimension of the ongoing information revolution and that censorship, even if desirable from the moral perspective, was difficult to impose on such an open, interactive system (Holderness, 1995).

Even with the difficulty in regulating such an ethereal medium, the potential use of the home computer as an evasive mode of trafficking pornographic material did not escape the notice of relevant U.S. governmental agencies. The Attorney General's Commission on Pornography (U.S. Department of Justice, 1986) for example, stated over a decade ago that "the personal home computer provides individuals with an extraordinary new form of communication and information access. Providers of sexually explicit materials have taken advantage of this new technology by making Internet pornography the most recent advance in 'sexually explicit communications'."

Today the media continue to report the concern over obscene material available on the Internet and the possible detriment it poses to society. The regulation of such material is often justified by the argument that the images have undesirable social effects (Gunter, 1995). Recent attempts of the Communication Decency Act to regulate content available to U.S. Internet users was an illustration of a strong response to what some perceive as a social problem. The threat of criminal prosecution for possession and distribution of pornography, which is deemed illegal in some jurisdictions, may be a sufficiently strong incentive for commercial distributors to reconsider posting material that could result in such prosecutions. These well-publicized concerns were the motivating forces behind the ill-fated Communication Decency Act whose design was directed toward regulating the Internet.

Problem

Despite the subsequent controversy over Internet pornography, relatively little is known about what types of Internet pornography individuals consume and why some computer users view online pornography. The goals of this research were to learn more about the reasons and motivations behind the consumption, as well as the uses of and gratifications derived from viewing computer-meditated pornography.

A meta-analytic review (Allen, D'Alessio, & Brezgel, 1995) of 1,300 pornography research works revealed that the studies limited their coding to still photography, video, audio, and written texts — not one of the studies inquired into the individualized and habitual consumption of Internet pornography. Also from the meta-analysis, much of the research that attempted to explain the effects of pornography consumption failed to examine groups of people who independently and purposely chose to consume pornography. Instead, the preponderance of pornography research focused on the behavior of available people who were recruited by researchers to *become* pornography consumers.

Combining the popularity of home computers, the increasing use of Internet services, and the pedagogic enshrinement of porn (Atlas, 1999), new research is needed to examine the many issues surrounding Internet pornography and will naturally attract a vast body of researchers (Mitra & Cohen, 1998). The appearance and subsequent popularity of computer erotica can be interpreted at various functional levels and holds considerable importance for social science research. Thus, studying this new technology does "matter:" Many people do care about the Internet and what goes on within and through it (Jones, 1998). Internet pornography is a viable context for research in light of the particularly harmful social influences many *perceive* to be a result of exposure to pornographic material (Gunter, 1995). Also, the unique mode of acquiring the material and the "newness" of the phenomena support inquiries into the nature of Internet pornography.

Literature Review

Studies that were most pertinent and relevant for developing a rationale for this study were ones that examined the incorporation of new communication technologies for use by producers and consumers of pornography. The development of a pornography industry has, as one might expect, proceeded hand in hand with the invention of new forms of image reproduction, utilizing the opportunities for commercial exploitation of humanity's long-standing interest in depictions of the sexually explicit imagery (McNair, 1996). The history of pornography and the efforts to suppress it are inextricably bound with the rise of the new media and the emergence of democracy (McNair, 1996; Elmer-Dewitt, 1995).

Innovations in technology provided new opportunities in the pursuit to satisfy sexual appetites. Such opportunities, in turn, invited or drove exploration and experimentation in using the technology. The results were new and sometimes ingenious residual functions and latent uses of the technology for sexual purposes (Durkin & Bryant, 1995). Kramer (1994) stated that new technologies manifest the fundamental value of the modern attitude to simulate natural processes (sex) as graphically as possible. The technology itself expresses the modern perspectival obsession with making present what it absent. The abstract realm of the hyperreal (in this case, "hyper"-porn) is the masturbatory paradise of modern technological alienation. But modern technologies are desired because they increase this distance, this purity.

An example of this phenomenon is the home computer. Although intended primarily as a mechanism for extremely rapid, extraordinarily complex computational purposes, it quickly came to be used for communication of a sexual nature. Or sometimes it was used for transmitting particularly esoteric variations of sex that were deviant or sometimes illegal.

Perhaps demand for images that can't be found in the average adult bookstore or corner magazine rack drives the market for "cyberporn."

The sexual computer network offers a high degree of anonymity, protection, and secrecy. Through their personal computers, individuals easily obtain pornographic material of varying levels of lasciviousness. Some are hardly more than "naughty," while others are disturbingly degenerate, even to the point of being pathological. Today, all one needs is a computer and a modem to gain access to a wide variety and seemingly endless supply of pornographic material. Accessing pornography on the Internet has the benefit—for those members of society who prefer not to frequent adult bookstores—of privacy (a computer and a modem are all one needs); safety (HIV is one virus which computers are unable to carry); and user-friendliness (many of the cyberporn services offer an unprecedented selection of material). Like an onion, when each layer of carnality is peeled back, another deeper and more perverse layer is revealed (Zillman & Bryant, 1989).

McNair (1995) offers a succinct rationale by stating that for all these reasons, and notwithstanding the ability of unsupervised minors to access it, the Internet can be expected to increase in importance as a means of disseminating pornography.

Research Questions

What types of Internet pornography are consumed? How much is consumed compared to traditional forms? What do individuals do with it? Why do individuals consume it? These general questions about the use of a specific medium are best addressed from the uses and gratifications theoretical perspective. Uses and gratifications theory attempts to explain the *uses* and *functions* of the media for individuals, groups and society in general (Infante, Rancer & Womack, 1995). In the present study, the "medium" consumed is Internet pornography, and an individual downloading or looking at Internet pornography is represented by the terms "consume" and "consumption." Uses and gratifications theory will help address what people do with Internet pornography; *how* individuals *use* Internet pornography to gratify their needs; and to discover the underlying motives for consumption (Rubin, 1985). Thus, the following research questions are proposed:

RQ1 How much traditional pornography and Internet pornography do individuals consume?

RQ2 How much hardcore Internet pornography and softcore Internet pornography do individuals consume?

RQ3 Are there differences between individual's motivations for consuming Internet pornography?

Traditional pornography

The first research question sought to determine how much traditional pornography and Internet pornography consumers of Internet pornography viewed. This aspect inquired into individuals' amount of Internet pornography consumed and how much they viewed in relation to "traditional" forms. In many places in the U.S. there are obscenity laws that restrict the types of traditional pornography available for purchase, thus limiting it to the "softcore" genre. Thus, most of the pornography available at the local newsstand pales in comparison to the level of lewdness available with Internet pornography. The variables measuring the "amount of pornography consumed" (for both Internet and traditional) were operationalized by measuring the amount of pornography consumed over one month.

Internet pornography

Another goal of the research was to investigate what types of Internet pornography individuals viewed on a regular basis: Did they consume hardcore or softcore pornography? The second research question asked how much hardcore and softcore Internet pornography was consumed by users of Internet pornography. This question determined if they report consuming a higher amount of hardcore than softcore Internet pornography. Given the difficulty of regulating content and online behavior, it is relatively easy to obtain hardcore pornography; material not available for consumer purchase in much of the U.S.

Motivations

The final area of investigation looked at individuals' motivations for consuming Internet pornography. The third research question that addresses this concern asked if there were certain motivations for consuming Internet pornography that were more prominent than other motivations. The variable measuring "reasons for consuming Internet pornography" were operationalized by six categories of possible reasons individuals consume Internet pornography. Previous studies revealed (Frable, et. al., 1997; Allen, et. al. 1995) that there are six distinct reasons why individuals consume traditional pornography: (1) Participants viewed sexual materials to make sex more interesting; (2) to relieve sexual tensions; (3) to "turn on" a sexual partner; (4) to enjoy sexual thrills; (5) to enjoy a social event; and (6) and to learn about sex. But among these motivations, does any of them stand out as a prominent reason for an individual's consumption of Internet pornography?

Given the previous review regarding some aspects of traditional vs. Internet pornography, it is expected that individuals will consume more Internet pornography than traditional pornography, which will be characterized by more hardcore pornography. Due to the availability of hardcore material and variety of fetishes online, the hypothesis is that individuals who consume high amounts of Internet pornography would consume less traditional pornography. Some of the reasons for this hypothesis are that the Internet provides a more deviant selection than is legally available in most locations; it is accessible from the privacy of the home; and it is convenient to acquire. Thus, the following hypotheses are posited:

H1 Individuals who consume Internet pornography consume lower amounts of traditional pornography.

H2 Individuals who consume Internet pornography consume higher amounts of "hardcore" pornography.

H3 Individuals who consume Internet pornography will report differences between their motivations for consuming Internet pornography.

Method

Procedure

This research was interested in investigating the specific population of consumers of Internet pornography. As such, the sample attempted to be representative of active consumers of Internet pornography. The sample did not attempt to be representative of the entire "online population"— only individuals who view Internet pornography. The desired target population required participants to: 1) be consumers of Internet pornography and 2) have a familiarity with methods of acquiring such material. In an attempt to ensure that subjects met these criteria and remained anonymous the sample was made up of individuals who were online and used Internet pornography.

Online surveys and the success of these methods are of growing interest to researchers (Kiesler & Sproull, 1986; Maisel, Robinsion, & Werner, 1985). Recent studies have shown that teens are more likely to admit risky behavior when answering questionnaires on a computer than when filling out a written survey, and that results of computer surveys are also significant for older age groups (Teens prefer "telling all" to a computer, 1998). Also, Fowler (1990) suggests that computer-mediated surveys has the ability to reach a relatively rare, hidden, and geographically dispersed group.

Due to the private, sexual — and sometimes illegal — nature of the questions, computer-mediated methods of collecting responses are advantageous for this study. However, it is acknowledged that the respondents will likely be predominantly young, male, white, highly educated, and not representative of the general population of the U.S. (Fowler, 1990). But this is due to the nature of individuals who are attracted to Internet pornography, newsgroups, and the demographic characteristics of Internet users in general.

The first step in the recruitment was to identify where the appropriate subjects were available. Participants in adult Usenet newsgroups, such as *alt.sex.pictures*, *alt.binaries.pictures.erotica*, *alt.binaries.sex* or *alt.sex.stories*, voluntarily visit these newsgroups to obtain pornographic material. Also, participants in Internet Relay Chat (IRC) rooms, such as *#amatuer_sex_pics*, *#adult_sex_pics*, and *#sex_pic_trading* visit these chat rooms to download and trade pornographic files. This segment of the online community represented the most appropriate population from which the sample was drawn.

The second step was to recruit participants by posting announcements of the study on various adult newsgroups and in adult chat rooms. A list of all adult (pornographic) Usenet newsgroups in the alternative (alt.) category was compiled, along with a complete list of all adult (pornographic) chat rooms on mIRC (a popular synchronous Internet relay chat program). A systematic sample was drawn from this population by posting study announcements in every tenth newsgroup or chat room every day for two months. The announcement included a "call for participants" and a brief explanation of the study. Since an online version of the survey was constructed and placed on a web page, the URL of the survey website was also included. Once the study announcements were posted, individuals accessed the research project web page. Prior to beginning the survey, participants had to navigate through introductory web pages that included the "Informed Consent Form" and instructions on how to enter their responses.

Data for this research were obtained from a self-report survey administered on a web page. The survey was constructed as a "form" (a cgi-based .html document) on a web page assembled for the purpose of this study. Since the entire survey was administered on a web page, the responses for each question had a corresponding "button" for the subjects to "click on" with their mouses to indicate their answer. When participants submitted their completed survey, the .html code of the survey page was designed to "post" their responses to a remote cgi-bin (common gateway interface). The only information contained in the cgi-bin was the numeric string data of responses, the respondents' IP (Internet Protocol) address, and a time and date stamp of submission. No names, e-mail addresses, or other personally identifiable marks were collected. Using a form to post results to a cgi-bin ensured that responses were not e-mailed to the researcher or posted in an easily accessible location which could have jeopardized participant anonymity. Their numeric responses became the raw data for analysis.

To ensure that no one completed the survey more than once, information obtained from web server log files was compared with the posted survey results. By submitting a completed survey to the cgi-bin, each survey respondent posted his/her IP address. An IP address is a series of 10 numbers (i.e., 198.69.223.34) that identifies the computer of each visitor. An IP log was compiled with each IP address listed in ascending order. When duplicate IP addresses were found, the corresponding survey results were omitted from analysis. As a result, four returned surveys were discarded.

Instrumentation

The online survey contained four measurements from each respondent: 1) measure of exposure to traditional pornography; 2) measure of exposure to Internet pornography; 3) measure of reasons for viewing pornography; and 4) standard demographics. The instruments were implemented to operationalize the dependent and independent variables.

Exposure to Traditional Pornography

Exposure to traditional pornography was measured by how many times during the past month participants viewed traditional forms of pornography. Frable, Johnson & Kellman's (1997) Exposure to Sexual Material Questionnaire (ESMQ) was used to a measure participant's amount of exposure to traditional pornography. Participants were asked 15 questions to assess their amount of exposure to traditional forms of pornography over the past month. Exposure to traditional forms of pornography served as a standard for comparison to the amount of exposure to Internet pornography. (See appendix A for the questions comprising the Exposure to Sexual Material Questionnaire.)

An important aspect of this study was the operational definitions for and distinctions between "hardcore" pornography and "softcore" pornography. The definition of the variables "hardcore" and "softcore" relied in part on the Final Report of the Surgeon General's Commission on Pornography (U.S. Department of Justice, 1986). "Hardcore" was operationalized by such things as "sexually violent materials that portray rape and other instances of physical harm to persons in a sexual content," "nonviolent materials depicting degradations, domination, subordination, or humiliation," "nonviolent and nondegrading materials depicting individuals having vaginal, anal, or oral intercourse with no indication of violence or coercion," and "any form of pornography which involves children." "Hardcore" was further operationalized by such things as heterosexual or homosexual vaginal or anal penetration, fellatio, cunnilingus, or three or more persons engaged in sexual activity. "Hardcore" was also defined (Bloch, Cole, & Epperson, 1995) as any material that fell into the paraphilia category.

"Softcore" pornography was operationalized and identified as "the presence of women or men posing nude with NONE of the above included in the picture, " and "nudity showing the naked human body with no obvious sexual behavior or intent."

A seven-point scale was used for responses to these items (1 = zero times in the past month; 2 = one to two times in the past month; 3 = three to five times in the past month; 4 = six to ten times in the past month; 5 = 11 - 50 times in the past month; 6 = 51 to 100 times in the past month; 7 = more than 100 times in the past month). Responses were divided into "hardcore" and "softcore pornography" subscales. A "hardcore pornography" subscale was created by summing the z-score transformations of items 2, 4, 5, 7, 9, 10, 12, 13, 14 and 15. A "softcore" subscale was created by summing the z-score transformations of the items 1, 3, 6, 8 and 11. Before summing, the items were recoded so that a high score on the scale indicates higher levels of exposure to pornography. Past reliability coefficients for this scale range from .72 to .89, with the scale used in this study reporting alpha = .80.

Exposure to Internet Pornography

Exposure to Internet pornography was measured by how many times during the past month participants consumed Internet pornography. Inspired by research using similar coding procedures (e.g., Frable, Johnson & Kellman, 1997), the Exposure to Internet Pornography Questionnaire (EIPQ) contained 22 questions (also representing a "hardcore pornography" and "softcore pornography" subscale). The EIPQ has similar structure to the measurement of traditional pornography consumption — the difference being EIPQ expressly measured exposure to the computer-mediated versions of Internet pornography. (See appendix B for the questions comprising the Exposure to Internet Pornography Questionnaire.)

A seven-point scale was used for responses to these items (1 = zero times in the past month; 2 = one to two times in the past month; 3 = three to five times in the past month; 4 = six to ten times in the past month; 5 = 11 - 50 times in the past month; 6 = 51 to 100 times in the past month; 7 = more than 100 times in the past month). A "hardcore" subscale was created by summing the z-score transformations of 11 items: questions 3, 4, 6, 8, 13, 14, 15, 17, 18, 20 and 22. A "softcore" subscale was created by summing the z-score transformations of 11 remaining items: questions, 1, 2, 5, 7, 9, 10, 11, 12, 16, 19 and 21. Before summing, the items were recoded so that high score on the scale indicate higher levels of exposure to pornography. Before summing, the items were recoded so that high scores on the scale indicates higher levels of exposure to pornography. Cronbach's alpha for the scale was .70, which is acceptable, but lower than the scale measuring exposure to traditional pornography (the ESMQ).

Reasons for Consumption

Reasons for consuming Internet pornography was measured by assessing respondents' support or rejection of reasons individuals have for viewing Internet pornography. The 17 items (representing six subscales) were used to operationalize the variables of "why the participants use this material" and "what gratification do they receive from its use." Frable, Johnson, & Kellman's (1997) scale was a typical way of evaluating attitudes about the consumption of pornography. (See Appendix C for statements comprising the participants' endorsement or rejection of reasons for viewing Internet pornography.)

A five-point scale ranging from strongly agree to strongly disagree was used for responses to theses items. Six different subscales were created by summing the z-scores transformations of these items. Subscales were created to differentiate between individual's motivations for consuming Internet pornography:

Subscale 1 measured the reason "to make sex more interesting"
1. It helps make sex more interesting
3. I enjoy seeing unusual positions and acts
10. Sex is boring and this makes it interesting

Subscale 2 measured the reason "to relieve sexual tension"
4. To help me relieve sexual tensions
7. To masturbate
15. To turn me on

Subscale 3 measured the reason "to turn on a sexual partner"
6. Turn my sexual partner and me on
8. My sexual partner and I just do
12. My sexual partner wants me to

Subscale 4 measured the reason "for sexual thrills"
9. Because I am bored
10. For thrills
13. Like to see bizarre sexual acts

Subscale 5 measured the reason "to enjoy a social event"
2. Because my friends approve
14. It is a social event

Subscale 6 measured the reason "to learn about sex"
5. To get information about sex
16. That is how I learned about sex
17. Because I am curious

Before summing, the items were recoded so that high scores indicated more support for the reason given. Cronbach's alpha for this scale is .90.

Demographics

Subjects provided information on the following demographics: age, gender, relationship status, education and income.

Participants

Overall, 231 individuals participated in the study. Of the 231 participants, 218 were men (94%) and 13 (6%) were women. Their average age was 33.2 years old (SD = 10.25) with a range of 18 to 77. Most commonly reported education level was "some college but no degree" (44%), followed by "bachelor's degree" (23%). Results revealed participants' relational status as 45% "single," 31% "married, 14% "separated/divorced," and 10% "live-in partner." Participants' annual household income ranged from 26% in the "$45,000 – $54,999" range, 18% in the "$35,000 – $44,999" range, and 18% in the "$55,000 - $64,999" range.

Results

Research Question One

Research Question One asked, "How much traditional pornography and Internet pornography do individuals consume?" Participants reported two measures: the amount of traditional pornography consumed and the amount of Internet pornography consumed over the past month (1 = zero times in the past month; 2 = one to two times in the past month; 3 = three to five times in the past month; 4 = six to ten times in the past month; 5 = 11 - 50 times in the past month; 6 = 51 to 100 times in the past month; 7 = more than 100 times in the past month).

Participants reported consuming traditional pornography one to two times in the past month (M = 1.87, SD = .72) and reported consumption of Internet pornography in the range of

11 to 50 times in the past month (M = 5.73, SD = 1.29). Because of unequal number of questions in each instrument, responses were converted to z scores and a two-dependent sample t-test was conducted to compare the amounts of traditional and Internet pornography consumed.

Hypothesis One

Hypothesis One argued, "Individuals who consume Internet pornography consume lower amounts of traditional pornography." The difference between the amount of traditional and Internet pornography consumed was not statistically significant, thus H1 was not supported, t (460) = 0.21, $p > .05$.

Research Question Two

Research Question Two asked, "How much hardcore Internet pornography and softcore Internet pornography do individuals consume?" Participants reported consuming hardcore Internet pornography in the range of 51 to 100 times in the past month (M = 6.51, SD = 2.24) and reported consuming softcore Internet pornography in the range of six to 10 times in the past month (M = 4.03, SD = 2.26). A one-way ANOVA was used to determine if the differences in consumption were significant.

Hypothesis Two

Hypothesis Two argued, "Individuals who consume Internet pornography consume higher amounts of 'hardcore' Internet pornography." Results of a one-way ANOVA on consumption of Internet pornography and type of Internet pornography (hardcore of softcore) revealed that participants consumed a higher amount of hardcore Internet pornography, F (1, 156) = 30.59, $p < .0001$. Thus, H2 was supported.

Research Question Three

Research Question Three asked, "Are there differences between individuals' motivations for consuming Internet pornography?" An ANOVA was run to determine if there were differences between participants' motivations. Results revealed that participants most often said they consumed it "to relieve sexual tensions" (*M* = 3.52, *SD* = 1.21) and "to enjoy sexual thrills" (*M* = 3.47, *SD* = 1.22). The third most common reason cited was "to make sex more interesting" (*M* = 2.77, *SD* = 1.29), followed by "to learn about sex" (*M* = 2.61, *SD* = 1.32). The least common reasons cited were "to enjoy a social event" (*M* = 2.26, *SD* = 1.14) and "to turn on a sexual partner" (*M* = 2.19, *SD* = 1.22). Ryan Multiple Comparison Procedure was run to determine which reasons were significantly different from other reasons.

Hypothesis Three

Hypothesis Three argued, "Individuals will report differences between their motivations for consuming Internet pornography." Ryan MCP revealed significant differences among the six categories of motivation by grouping the responses into three groups: 1) "to relieve sexual tensions" and "to enjoy sexual thrills"; 2) "to make sex more interesting" and "to learn about sex"; and 3) "to enjoy a social event" and "to turn on a sexual partner," *F* (5, 3687) = 78.69, *p* < .0001. Therefore, individuals consume Internet pornography primarily "to relieve sexual tensions" and "to enjoy sexual thrills."

Discussion

The first research question asked if there were differences in the amounts of consumption of Internet pornography and traditional pornography. The results from the study do not support the hypothesis that those who consume Internet pornography will consume a different amount of traditional pornography.

It was suspected that consumers of the Internet version would use more Internet pornography because it is easily and readily available from home. Also, users can get any type of material he or she wants no matter how perverted. The Internet version is seemingly limitless, with new adult sites, newsgroups, ftp sites, and chat rooms starting every day, with an increasing number of people downloading and trading pictures. The same cannot be said about the traditional type: The local adult bookstore can only stock so many magazines or movies. Another issue to consider is that it is more difficult (if not illegal) in some locations to get "hardcore" traditional pornography. Since access to the Internet version is not restricted by jurisdictional boundaries it was assumed that people would use this form more often.

Since these individuals did not consume significantly different amounts of Internet and traditional pornography, this suggests they may simply be using the Internet as another method to obtain pornography or to supplement a pornography habit. Simply put, these users *consume pornography*—regardless of type. The participants in this study reported that they viewed traditional *and* Internet forms, but not one more than the other. The possible implications are that viewing "cyberporn" won't "make" someone a porn addict—individuals may need a predilection toward pornography to begin with.

The second research question sought to determine if consumers of "cyberporn" favored hardcore over softcore Internet pornography. The results from the study strongly support the position that individual consumers favor hardcore over softcore versions of Internet pornography. The most likely explanation can be seen in the large amounts and expansive varieties of hardcore pornographic material available online. The hardcore fare, which is limited only by imagination, is virtually unregulated and accessible by anyone with a little searching savvy. Since much of the hardcore material would be illegal in print or video format, the Internet versions may be the only way to access and consume it. Therefore, these findings suggest that individuals who favor hardcore pornography utilize the Internet as a mode or resource for obtaining material that satisfies their deviant fetishes.

The third question asked cyberporn users what their reasons or motivations were for consuming Internet pornography. Participants strongly favored certain reasons, while other motivations received less credence. Participants most often cited reasons of "relieving sexual tensions" and "enjoying sexual thrills." Analyzing these findings in conjunction with the subjects' preferences for hardcore material suggests that users view this material as a way of getting "turned on."

Participants reported others reasons, "to make sex more interesting" and "to learn about sex", but they were not as popular as previous responses. These motivations suggest the possibility that consumers sometimes use cyberporn to "spice up" their sex life or to view deviant sexual behavior—acts they would never be able to do with a partner.

The final reasons offered as possible motivations for consumption, "to enjoy a social event" and " to turn on a sexual partner," received less support from participants. Their responses did not indicate that they viewed porn with friends or with a partner, thus indicating that consuming Internet pornography is a solitary event—possibly one that is kept secret.

When the findings from these separate and distinct reasons are combined with the conclusions from the second research question, a pattern of behavior emerges. Participants purposely favored the consumption of hardcore material rather than softcore material. They would rather view the material alone instead of being in the presence of others. They enjoyed viewing this material "to relieve sexual tensions" and "to enjoy sexual thrills." To a lesser degree they viewed the material because it made sexual acts more entertaining and it piqued their curiosity. In conclusion, discoveries in this study may support the stereotype of a "cyberporn" user as someone who sits alone at his computer and masturbates while downloading graphic sexual depictions.

Limitations

A limitation of this study is the tool used to collect the data. Since this survey was administered online, the researcher had little control over who actually completed the survey or determining the accuracy of the self-reported responses. Every effort was made to ensure that only people who were "qualified" to complete the survey were notified and that they only completed the survey once. The study was announced in adult chat rooms and on adult bulletin boards and IP logs from submitted surveys were kept and duplicate responses were deleted. But in the end, anyone who saw the announcement could have completed the survey—accurately or inaccurately.

A pertinent defense for the use of a web-based anonymous survey is that the research questions were concerned with the behavior of a specific population—consumers of online pornography. Posting the study on a web page is the most appropriate (and arguably the only way) to analyze this population. By promoting this study in adult areas of the web and having cyberporn users complete the questionnaire while online, this survey measures what it claims to measure.

Another rationale for this method is due to the nature of the questions. Some questions included illegal activities (certain types of pornography are illegal in some locations) and inquired into specific sexual behavior. Therefore administering the survey online lends the respondent a greater sense of anonymity. It is highly doubtful that many people would answer these questions on a pencil-and-paper survey, or in an interview or focus group. But since the participants were at a remote location, and their responses were posted anonymously to a cgi-bin (not e-mailed to the researcher), it is plausible to believe that their responses were honest and accurate. For these reasons, using an online survey was the best method of collecting data on the uses of and gratifications derived from Internet pornography.

Also, since 96% percent of participants were male, the female users of Internet pornography were under-represented. This came as no surprise given the current demographics of web users (Fowler, 1990) and that most pornography is consumed by men.

An unintentional bias in this study, which will be remedied in subsequent studies, was that the questions, types of pornography asked about, and locations of posting of announcements was biased toward heterosexual males. Only heterosexual "examples" of Internet pornography were used and messages were posted only in heterosexual-oriented newsgroups.

Future Research

This area of research would benefit from studies comparing the behaviors and motivations of users of traditional pornography and Internet pornography. By using data collected from users of traditional pornography as a standard for comparison, possible studies may include an investigation into the differences in attitudes between users of traditional and Internet pornography.

Appendix A: Exposure to Sexual Materials Questionnaire

The next 15 questions are designed to measure your use of and exposure to pornography. Please rate the following statements on the scale according to how frequently you have done each of these things within the past month. If you are not sure, give your best guess.

1 = zero times in the past month
2 = one to two times in the past month
3 = three to five times in the past month
4 = six to ten times in the past month
5 = 11 - 50 times in the past month
6 = 51 to 100 times in the past month
7 = more than 100 times in the past month

1. Read *Penthouse* magazine?
2. Read *Hustler* magazine?
3. Read *Playboy* magazine?
4. Seen X-rated films with a group of friends?
5. Seen films in which a woman is forced to have sexual intercourse and appears to enjoy the experience?
6. Purchased *Playboy* magazine?
7. Purchased *Hustler* magazine?
8. Purchased *Penthouse* magazine?
9. Seen films that depict sadomasochistic sex (i.e., people whipping, spanking or using force with each other)?
10. Seen a hardcore X-rated movie by yourself?
11. Seen a softcore movie, like a *Playboy* movie?
12. Seen a hardcore X-rated movie with a partner?
13. Seen films that depict sexual activity with children who appear under 15 years of age?
14. Seen films in which a woman is forced to have sexual intercourse and does NOT appear to be enjoying the experience?
15. Seen a movie that depicts simulated intercourse (i.e., no oral or genital penetration)?

Appendix B: Exposure to Internet Pornography Questionnaire

The following 22 questions ask about your use of Internet pornography. Internet pornography includes such things as Internet sites with pornography (adult sites), trading pornographic pictures (such as .jpg or .gif) or videos (such as .mpeg, .avi), "cybersex" in adult chat rooms, using teleconferencing software to access "sex shows," or downloading files from adult IRC sites or Usenet newsgroups. Please rate the following statements on the scale according to how frequently you have done each of these things within the past month. If you are not sure, give your best guess.

1 = zero times in the past month
2 = one to two times in the past month
3 = three to five times in the past month
4 = six to ten times in the past month
5 = 11 - 50 times in the past month
6 = 51 to 100 times in the past month
7 = more than 100 times in the past month

1. Viewed pictures with content similar to that in *Playboy* or *Playgirl*?
2. Seen Internet sites which sells only sexual material, such as sexual devices, movies, sex games or adult CDS?
3. Seen pictures depicting homosexual oral-genital intercourse (lesbian or gay)?
4. Seen pictures depicting heterosexual intercourse?
5. Viewed softcore pornographic pictures or videos with your partner?
6. Viewed hardcore pornographic pictures similar to *Hustler* and *Cheri*?
7. Viewed pictures or videos with a softcore, "romantic" theme?
8. Seen pictures or videos in which a woman is forced to have sexual intercourse and does NOT appear to be enjoying it?
9. Listened to erotic sounds you downloaded from an adult site?
10. Viewed pictures or videos depicting models or movie stars?
11. Read erotic or pornographic stories you downloaded? (on an adult Internet site, IRC, newsgroups, e-mail, etc.)
12. Viewed pictures featuring (softcore) exposed breasts or exposed genitals?
13. Seen pictures depicting homosexual intercourse (lesbian or gay)?
14. Seen pictures or videos which depict pornographic material of children?
15. Seen pictures or videos depicting graphically exposed genitals?
16. Viewed softcore pictures or video while in the presence of your friends?
17. Seen pictures or videos which depict "sadomasochistic" sex (i.e., people whipping, spanking, or using force with each other)?
18. Viewed pornographic material that depicted a specific fetish (BDSM, piercing, "watersports," lingerie, feet, "facials," teens, etc.)?
19. Seen an adult Internet site featuring adult club listings and performers?
20. Viewed pornographic videos (.mpeg, .mov, .avi or other format) with hardcore pornographic material?
21. Viewed pictures featuring softcore material, such as lingerie or swimsuits?

Seen pictures depicting heterosexual oral-genital intercourse?

Appendix C: Reasons for Consuming Internet Pornography Questionnaire

The following scales ask questions about your reasons for viewing Internet pornography. Please enter the letter that fits your experience according to the following key:

1. Strongly agree
2. Agree
3. Neither agree NOR disagree
4. Disagree
5. Strongly disagree

1. It helps make sex more interesting
2. Because my friends approve
3. I enjoy seeing unusual positions and acts
4. To help me relieve sexual tensions
5. To get information about sex
6. Turn my sexual partner and me on
7. To masturbate
8. My sexual partner and I just do
9. Because I am bored
10. Sex is boring and this makes it interesting
11. For thrills
12. My sexual partner wants me to
13. Like to see bizarre sexual acts
14. It is a social event
15. To turn me on
16. That is how I learned about sex
17. Because I am curious

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Free Air Time for Candidates

An Attempt to Improve Political Discourse

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ABSTRACT

Many Americans think the costs of campaigns are increasing at an alarming rate. One proposed solution to the perceived problem of the money-chase is free air time provided by broadcasters. This paper begins with an historical perspective of political advertising and campaign finance laws. Then, the arguments pro and con are examined followed by some recent proposals. Lastly, a look at recent free air time experiments points out some of the benefits and weaknesses.

INTRODUCTION

A poor man's soapbox does not equal a rich man's wallet.

-- Senator Bill Bradley, October 18, 1996[1]

Major party presidential candidates spent $800 million in their quest for the nomination and election in 1996.[2] In 1988, they had only spent $500 million. In recent years, about two-thirds of those dollars have gone to the media (including production costs).[3] The number of election stories on the three major television networks between Labor Day and Election Day decreased by 73% from 1994 to 1998.[4] This is even though television news is the main source of political information for many Americans[5]. The well-known fundraising abuses in the 1996 election convinced many political observers that the campaign fundraising race is out of control. The voter turnout in that election was below 50%, the lowest turnout in a presidential election since 1924[6]. Looking at examples like this, Curtis Gans of the Committee for the Study of the American Electorate has noted, "It is little wonder that American politics is withering at the grassroots."[7] Early in 1999, already a number of people have announced their intention to run for President in 2000. Why? Political consultants such as Charles Black say that candidates need to start fundraising early to drum up the $20 million needed for a credible primary race.[8]

How can this be turned around? In 1936, GOP vice-presidential candidate Frank Knox asked, "Why not . . . require that, near election time, both great parties be allowed, without expense, an equal amount of time on the air, to the end that both sides of all issues be fairly and adequately presented to the people?"[9] Some politicians and scholars, such as President Clinton and Professor Larry Sabato, have again recently proposed offering free air time to candidates. They believe that the increase in negative advertising and short campaign spots is contributing to the weakening of political discourse. They also believe that the money chase in politics is giving a voice to the rich while leaving the rest of America behind. As W. Lance Bennett writes in his book *The Governing Crisis*, "These . . . reforms would simultaneously cut the costs of campaigning and require candidates to actually say something in the spaces allocated to them."[10]

The purpose of this paper is to examine the idea of free air time, beginning with a historical perspective of campaign finance laws and political advertising. Next, some arguments for and against the concept will be presented. An assessment of current free air time proposals will then be followed by a look at a few recent free air time experiments which point out some of the benefits and problems associated with the idea.

A number of limitations have been placed on the scope of this paper. First, one must understand that there is no single free air time proposal. Because of its political nature, all of the ideas are fluid. Second, free air time proposals are just one aspect of overall campaign reform. A full analysis of increasing the quality of American campaigns, including financing, will not be possible. Third, because broadcasters have a long-standing public interest obligation, the focus will be on them. Fourth, federal candidates are the most logical place to begin with when thinking of free air time proposals. When proven successful, the program could be expanded to include state and local candidates. Lastly, a new problem on the political scene is the proliferation of third party, issue oriented advertisements. While this is certainly an area of political advertising that needs to be examined, an analysis of this issue will not be included.

LITERATURE REVIEW

Much of the recent literature on this subject concerns the constitutionality of the idea. As would be expected, the literature is quite mixed. Many have written that the idea violates First Amendment or Fifth Amendment rights of broadcasters (see BeVier[11], DeVore[12], Melcher[13], or Smolla[14]). Zwerling[15], however, finds that a free air time proposal would meet a constitutional test. As a truly political issue, it will probably have to be implemented before Americans find out whether the courts of the day rule it constitutional.

Others write more generally about broadcasters' public interest obligations. Aufderheide[16] has written about the public interest standard after the Fairness Doctrine. Corrado[17] has examined political programming as part of digital broadcasters' public interest obligations. Lastly, Hundt[18] writes extensively about the idea of a concrete public interest standard, including free air time requirements.

HISTORICAL PERSPECTIVE

The technologies of radio and television changed the way campaigns were conducted. In 1896, presidential candidate William Jennings Bryan boasted that he had made 600 speeches in 27 states in 100 days, reaching five million people. Just about forty years later, President Franklin Delano Roosevelt was reaching twelve times that many in a single "Fireside Chat."[19] Before the advent of the broadcast media, the costs of campaigns were relatively low because they were fought in the press. As

Georgetown University professor Stephen Wayne writes, "Electioneering, as carried on by a highly partisan press before the Civil War, had few costs other than for the occasional biography and campaign pamphlet printed by the party and sold to the public at less than cost."[20] In the middle of the nineteenth century, candidates began advertising with buttons, billboards, banners, and pictures. By the beginning of this century, the costs of this type of advertising in presidential elections was around $150,000.[21] That was high by the standards of the time, but obviously low by today's standards. Radio was used for the first time in presidential campaigns in 1924; the Republicans spent $120,000 while the Democrats spent $40,000 on radio time for speeches and advertising.[22] In 1928, the *New York Times* summarized the importance of the new radio technology: one headline read "The New Instrument of Democracy Has Brought the Candidates into the Home, Enabled Them to Reach All of the People, and Radically Changed the Traditional Form of Political Appeal."[23] Over the next twenty years, radio expenses equaled or exceeded a million dollars per election.[24] In 1940, television covered its first political conventions; it was only available to less than 100,000 viewers. In 1948, television and presidential campaigns intersected for the first time in a major way. While national networks had not developed fully, the presidential campaigns were broadcast to a region that encompassed 168 electoral votes (mostly in the northeast United States)[b]. 1948 was also the first year in which presidential candidates purchased air time. President Truman delivered a paid speech from Jersey City, New Jersey on October 5.[25] 1952 was the year in which television became a national medium. There were only 19 million television sets in the U.S., but both national party conventions were broadcast nationwide. The first television campaign commercials debuted in 1952 as well.[26] The year before, Governor Dewey of New York told the *New York Times* that "Politically, television is an X-ray. If a man doesn't know the business of government, he cannot long stand its piercing lights and stark realism. It should make a constructive advance in political campaigning."[27] In 1952, media consultants such as Rosser Reeves put together the advertisements, but there was no planning of media strategy. By 1964, media consultants had a sturdy foothold in presidential campaigns; they had equal standing with the political operatives in terms of strategy planning.[28] That same year, candidates spent $18 million on television and radio air time. By 1996, television costs alone were approximately $100 million.[29]

Kathleen Hall Jamieson writes that "Once radio was recognized as a powerful political tool and a precedent was set for sale of advertising time to candidates, broadcasters and politicians asked what restrictions, if any, should govern the content and cost of such ads."[30] Weighing in on the controversy,

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[b] There were 531 electoral votes nationally that year, so this represented 31% of the electoral college.

Congress wrote the Federal Radio Act of 1927, which eventually became the Communications Act of 1934. This Act, as amended by the Telecommunications Act of 1996, continues to regulate broadcasting today. The Act established the Federal Communications Commission (FCC). Section 303 of the Act gives the FCC its powers to regulate broadcasting in the "public convenience, interest, or necessity."[31] Section 315 of the Act continues, to this day, to regulate political advertising:

> If any licensee shall permit any person who is a legally qualified candidate for any public office to use a broadcasting station, he shall afford equal opportunities to all other such candidates for that office in the use of such broadcasting station . . . Provided, That such licensee shall have no power of censorship over the material broadcast under the provisions of this section. No obligation is hereby imposed upon any licensee to allow the use of its station by any such candidate.[32]

The first major federal campaign finance law, the Federal Election Campaign Act (FECA), was passed by Congress in 1971. It strengthened disclosure laws and limited expenditures by federal candidates on all advertising. Some of the comments made at the time seem awfully familiar: Democratic National Committee general counsel Joseph Califano remarked, "money is unquestionably the most debilitating and corrupting force in American politics."[33] Among other things, a FECA provision included that broadcasters may only charge candidates the "lowest unit rate" charged of their best commercial customers. University of Virginia professor Larry Sabato writes that, "This provision is of singular importance because it establishes in law the principle that expanding political communication at an affordable cost takes precedence over broadcasting industry profits."[34] A separate act that same year, the Revenue Act of 1971, set up public financing of presidential campaigns. After the Watergate scandal, Congress amended the Act in 1974. The new law "included public disclosure provisions, contribution ceilings, spending limits, and federal subsidies for major party candidates in the nomination process and complete funding for them in the general election."[35] The amended Act also established the Federal Election Commission to administer all of the regulations.

Two years later, in the case of *Buckley v. Valeo* (424 U.S. 1, 1976)[36], the U.S. Supreme Court struck down parts of the law, specifically the overall spending limits:

> It [the Court] held that restrictions on individual contributions to political campaigns did not violate the First Amendment since the limitations of [the law] enhance the 'integrity of our system of representative democracy' by guarding against unscrupulous practices.

> [However,] the Court found that governmental restriction of independent expenditures in campaigns, the limitation on expenditures by candidates from their own personal or family resources, and the limitation on total campaign expenditures did violate the First Amendment. Since these practices do not necessarily enhance the potential for corruption that individual contributions to candidates do, the Court found that restricting them did not serve a government interest great enough to warrant a curtailment of free speech and association.[36]

Buckley v. Valeo is often cited by both sides in the free air time debate because of its constitutional free-speech impact.

The other Supreme Court case which is often brought up in the discussions over free time is *Red Lion Broadcasting Co. v. FCC* (395 U.S. 367, 1969)[d]. In this instance, the Court upheld the constitutionality of the Fairness Doctrine. The Doctrine, which was in effect from 1949 to 1987, required broadcasters to provide a balanced and fair discussion of different views. Justice Byron White, writing for the Court, said that as long as there is more demand for spectrum space than frequencies available, use the broadcast spectrum is not a constitutional right.[37] Justice White also said that because of the limits of the broadcast spectrum, the government was within its right to adopt regulations consistent with the First Amendment goal of informing the public so that people could govern themselves.[38] Proponents of free air time proposals use the ruling in *Red Lion* to bolster their case. In 1987, as part of the deregulatory atmosphere of the time, the FCC found that the Fairness Doctrine inhibited broadcasters from covering controversial issues. They held "that under the constitutional standard established by *Red Lion* and its progeny, the [F]airness [D]octrine contravenes the First Amendment and its enforcement is no longer in the public interest."[39]

INTERNATIONAL PERSPECTIVE

Before moving on to the various current proposals, it is interesting to note that the American system of minimal campaign regulation is unique in the world. Bennett writes that "a number of thriving Western democracies as diverse, for example, as England, Germany, and Sweden, all regulate political advertising. . . . Their political processes, if not healthier than ours, are at the very least no worse for it."[40] In France, although there has been some media privatization, the television media remain highly regulated. Candidates cannot buy time; instead, they are given blocks of free program

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[c] In this case, various federal officeholders and candidates sued the government regarding portions of the FECA.

time. The 5- and 15-minute time segments are allocated according to the principle of equal time and have restrictions on content and production techniques.[41] In Germany, each party is given a number of 2½-minute spots on public broadcasting. The determination of the number of spots is made by party strength. There, party advertising is seen more as having an informational function for the people rather than serving the parties' interests.[42] In Great Britain, free air time in the form of "party political broadcasts" was begun on radio in 1945 and on television in 1951. Parties are given time in proportion to their size in Parliament, and no paid political advertisements are allowed.[43]

ARGUMENTS: PRO & CON

There are a number of arguments for and against the free air time idea. The three main advantages argued are that it would take big money out of the political system, that it would improve political discourse, and that broadcasters would be fulfilling their public interest obligation. Four arguments against the concept are that it is unconstitutional, that politicians do not spend much money on air time, that broadcasters are already operating in the public interest, and that content regulations will not improve discourse.

Many politicians and scholars have argued that rising campaign costs are directly attributable to the increasing costs and demands for air time. The Alliance for Better Campaigns argues that:

> Broadcast time is the single largest expense in political campaigns, accounting for more than half the spending in competitive races for Congress, governor, and the presidency. . . . If the broadcast industry were required to provide that much political advertising for free each two-year election cycle, it would substantially reduce the fund-raising pressures that candidates face. And it would do so at a cost to broadcasters of less than one percent of gross annual ad revenues.[44]

At the Annenberg Center conference, Donald Simon, Vice President of the advocacy group Common Cause, made similar remarks. He noted that the cost of air time represents a major, if not the largest, part of candidate spending, and it is the main factor causing the escalating costs of campaigns. He said, "the fundraising is principally for the purpose of raising money to pay broadcasters in order to buy back the public airwaves needed to conduct our public elections."[45] At the same conference, U.S. Senator John McCain, co-sponsor of the most recent campaign reform legislation, remarked that the influence of money on politics is actually limiting free speech. He said:

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[d] In this case, Red Lion Broadcasting challenged the application of the Fairness Doctrine; the FCC had ordered WGCB to provide free air time to a writer who was previously verbally attacked in a broadcast.

> A few days ago, on CNN, on March 2, a woman from Bartlesville, Oklahoma called in and asked, and I quote: 'I have a question for you. I'm a Republican, supposedly. I'm more independent than anything else, but I want to ask you something. At $735 a month, how much freedom of speech do I have? I cannot contribute to these big campaigns.' The lady from Bartlesville, Oklahoma, described the problem with political campaigns in America today better than I could if I spent the next hour with you on the nuances about constitutionality versus unconstitutionality. Money buys access, which buys influence in America today, and we have to give the American people the same access and influence that I believe they had for many, many years.[46]

Another argument for free time is that it would improve political discourse. Proponents believe that candidates would be less negative if they had more time and that longer segments would give candidates a chance to explain their positions in-depth. The Alliance for Better Campaigns argues that "the price of a political ad goes beyond the cost of consultants, production, and air time; it includes the cynicism and negativity that afflict the national political culture. Campaign ads, with their anonymous voiceovers, ominous music and distorted visuals, often deliver misleading, attack-oriented messages that turn off voters."[47] W. Lance Bennett offers a similar argument:

> Under the present system, the political commercial that reaches the television screen . . . does little to stimulate democratic dialogue. To the contrary, the practice of candidate marketing sets in motion a whole antidemocratic syndrome. . . . Skipping the stages of dialogue, reason, feedback, and debate, marketing techniques probe the subliminal mind of isolated segments of the voter market for images and themes that produce quick psychological responses. . . . Any practice that turns voting and citizen withdrawal into a good thing rather than a cause for alarm should be outlawed as unhealthy to the principles on which the whole system rests.[48]

Bennett argues that the free air time concept will help turn this around. Lastly, at the Annenberg Center conference, Becky Cain, President of the League of Women Voters, noted that Americans want to improve political discourse. In citizen assemblies across the United States, participants said that they "want to hear more from the candidates, and they want information in a more direct and less filtered format."[49]

The last argument that supporters use is that broadcasters need to live up to their public interest obligation. As former FCC Chairman Reed Hundt said, "The broadcasters have always had an obligation to use the public's airwaves to serve the public interest and what could be more in the public interest than providing a small portion of the hundreds of thousands of broadcasting hours to reform our system of democracy by minimizing the impact of money in campaigns?"[50]

Opponents of the free air time concept use a number of arguments, the most fundamental being that it is unconstitutional. They also argue that candidates do not actually spend that much money on advertising, that broadcasters already fulfill their public interest obligation by airing many hours of political programming, and that content regulations will not help political discourse.

Perhaps the most difficult question is the constitutionality of free air time proposals. National Association of Broadcasters (NAB) President Edward Fritts has called free air time proposals "blatantly unconstitutional."[51] There are three issues which may seem unconstitutional: the restriction of campaign spending, content restrictions for both candidates and broadcasters, and the potential interference with broadcasters' profits (unfair taking).

In *Buckley*, the Supreme Court linked campaign spending with free expression covered by the First Amendment. Attorney Susanna Zwerling writes, "In *Buckley*, a limitation on candidates' spending was unsuccessfully challenged as violating their free speech rights. A limitation on candidates' television advertising might, however, come even closer to infringing on the candidates' protected speech."[52] The Court has stated that the authors of the Constitution "believed that freedom to think as you will and to speak as you think are means indispensable to the discovery and spread of political truth; that without free speech and assembly discussion would be futile; . . . that public discussion is a political duty; and that this should be a fundamental principle of the American government."[53]

At the March, 1997 Annenberg Center forum, Cameron DeVore, the First Amendment Counsel to the NAB, pointed out to the other panelists that lawmakers need to take a close look at both the *Buckley* case and the *Red Lion* ruling. He argued that the *Buckley* ruling would most likely make free air time proposals unconstitutional. He also noted that *Red Lion* is a very narrow ruling that does not really apply to free air time: "What you're talking about here – mandating time to come from the broadcasters, requiring them to put on other voices, not voices of their choosing, but other voices to come on and espouse their election to voters – is something that is far beyond the scope (even if *Red Lion* lives) of *Red Lion*."[54]

Attorney Timothy Moran has written about the second constitutional question, content restrictions:

> A free-advertising proposal with a talking-heads format raises an unconstitutional conditions problem because it 'offers a benefit on condition that the recipient perform or forgo an activity that a preferred constitutional right normally protects from government

> interference.'[e] In order to obtain the free advertising, a candidate must surrender her discretion as to choice of format. This is a discretion that the government could not restrict freely.[55]

Moran goes on to argue that because of the benefits to political discourse and the fact that the free air time is not mandatory, the idea would likely pass a constitutional test.

DeVore has written about the third constitutional issue – unfair taking under the Fifth Amendment. For members of the recent Gore Commission (see below), he wrote that:

> proponents of 'free air time' argue that requiring broadcasters to air candidate messages for free would not constitute a taking because the Communications Act bars licensees from claiming any property interest in their licenses. While they may have no legal claim against the government for the spectrum as such, broadcasters certainly have a cognizable interest in the businesses they have developed using that spectrum, an interest that cannot be eradicated by government fiat.[56]

However, Zwerling writes that free time is constitutional because it is "germane to the purposes of the grant of a license, and [serves] a substantial government interest"[57]

Other lawyers and scholars have written about the constitutionality of free air time proposals, and many agree that the current proposals, in which free air time is offered to candidates in exchange for content and spending restrictions, would be constitutional. Zwerling wrote an extensive legal review of the constitutionality of free air time proposals. She concludes that free air time proposals are indeed constitutional:

> The first issue is the potential First Amendment violation inherent in the limitation on candidates' speech. The Court has held that a limitation on candidates' campaign expenditures does not violate the First Amendment if it is a condition on the voluntary acceptance of public campaign financing [*Buckley*]. It follows that a similar limitation on candidates' broadcast advertising during campaigns would not be a violation. . . . The second question is whether the government may require broadcasters to broadcast certain prescribed material . . . without violating the First Amendment. The government's responsibility to regulate broadcast programming for the public interest gives rise to a right to require that licensees of the broadcast spectrum provide a certain amount of time to candidates . . . . The final constitutional question is whether the government's

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[e] Kathleen Sullivan, *Unconstitutional Conditions*, 102 Harv. L. Rev. 1415, 1421-22 (1989).

> requirement of the provision of this time constitutes a taking of the broadcasters' property . . . . [It is not] because it is a condition on the issuance of a license which is itself a government benefit.[58]

A second argument against free air time proposals is that they will not improve discourse because politicians do not spend that much money on air time. Former journalist Dwight Morris is now head of the Campaign Study Group, a consulting firm. He has analyzed campaign spending in recent congressional races and has written, "The impact of television costs on campaigns has been wildly exaggerated. In the 1990 election, only 29 percent of the money spent by congressional candidates went for radio and television advertising and media consultants."[59] In that election, on average, broadcast advertising accounted for 35% of the spending by Senate candidates and 23% of the money spent by House candidates. In the 1992 elections, the numbers increased slightly, to 40% for Senate races and 25% for House candidates.[60] However, in the 1996 presidential campaign, both Bill Clinton and Bob Dole spent about half of their money on advertising.[61] Morris does not dispute the fact that campaign costs are rising, but he believes that reduced-cost or free air time will only make the number of ads increase. While he believes that campaign finance reform is needed, he believes free air time proposals are misguided. Proponents of the idea argue that free air time is just one step in decreasing campaign costs.

Curtis Gans, head of the Committee for the Study of the American Electorate and long-time commentator on political discourse, disagrees with Morris' basic view: "There is no question that the use of television in political campaigns is the principal source of increased campaign costs. And addressing the issue of television in political campaigns in the principal way one could control their costs."[62] Gans made this comment after an exhaustive study by his organization found that spending on political advertising has increased 196% since 1976 in competitive Congressional races. However, Gans does argue that unless the laws are carefully designed, candidates will just buy more air time: "My basic view is that unless you abolish all paid time, free time is a waste."[63] Some of the current proposals tie free air time into voluntary restrictions on additional advertising.

The National Association of Broadcasters is vehemently opposed to any free air time proposal. NAB President Edward Fritts released this statement in March, 1997: "Broadcasters have long opposed mandatory free air time for politicians because it: won't prevent illegal campaign contributions; won't reduce the cost of campaigns; won't stop negative campaign ads. . . . Broadcasters have a great tradition of voluntarily offering free air time for debates and other forums."[64] The NAB puts out a newsletter entitled "Free Air Times." In it, the Association points out that broadcasters are already offering many hours of free time in the form of news coverage and debates: "Broadcasters donated $148.4 million in free air time to political candidates and convention coverage during the 1996 elections. Candidates rejected an additional $15.1 million in debate time."[65] They also use Morris' research to bolster their position that government intervention is not needed. Obviously, broadcasters have an interest in preserving the status quo; as Sabato notes, "The broadcasting industry fights all proposals for free media time."[66] While broadcasters do indeed cover candidates and debates, the current system does nothing to reduce costs or improve the political discourse.

There are others in the business of politics who oppose the idea. At the Annenberg Center forum, Republican media strategist Alex Castellanos argued that free air time is not needed because of the increase in television news and public affairs outlets. He also argued against content restrictions, suggesting that those in his industry actually elevate the level of political discourse by bringing passion and conflict to politics: "Is it truer for Bob Dole to sit there in front of a TV camera and give passionless facts and policy?"[67] Former CBS News Executive Producer Barbara Cochran made a somewhat similar point: "The emphasis on free time, I submit, puts even more emphasis on the candidate's performance ability, and I'm not sure that's what the goal is here."[68] If the free time concept were to work properly, Americans would need to shift their thinking away from the current mindset and come up with a new frame of reference. Performance and slick advertising would not be what informs the electorate. Both the political industry and the American people would have to get used to something new, something more informative.

PROPOSED IDEAS

In the last decade, a number of free air time proposals have been made by politicians and political observers. Members of Congress, President Bill Clinton, and other interest groups and scholars have pushed for free air time. In his State of the Union address in January, 1998, President Clinton said:

> We have to address the real reason for the explosion in campaign costs -- the high cost of media advertising. . . . I will formally request that the Federal Communications Commission act to provide free or reduced-cost television time for candidates who observe spending limits voluntarily. The airwaves are a public trust, and broadcasters also have to help us in this effort to strengthen our democracy.[69]

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[f] Defined by CSAE as "whether the vote differential between winner and loser was within 8 percentage points."

Furthermore, the Clinton Administration has argued that because the government gave broadcasters an estimated $70 million[70] in additional spectrum for digital television, the broadcasters owe an increased debt to the public interest. There was much debate in Washington about what Senate Majority Leader Bob Dole called a "handout to the rich," but language was inserted into the Telecommunications Act of 1996 that directed the FCC to give the spectrum to current broadcasters.[71] In October, 1997, the President established the Advisory Committee on Public Interest Obligations of Digital Television Broadcasters, also known as the Gore Commission. It was made up of 22 members, seven from the broadcast industry and the rest from the public interest and academic arenas. The Committee studied what public interest obligations broadcasters should meet to keep their digital licenses; free air time was one idea under consideration. In December, 1998, the Committee offered its report to Vice President Al Gore. The report asked broadcasters to voluntarily offer free time:

> Our second recommendation for improving political discourse is for a critical mass of the television broadcasting industry to provide five minutes each night for candidate-centered discourse in the thirty days before an election. There are creative ways to improve political discourse, provide opportunities for candidates to get messages across to voters and to enhance voter understanding without heavy monetary costs to broadcasters, regulation of the content of programming, or without it being a kind of programming that will cause viewers to turn away.[72]

However, 13 members[g] of the Committee released their own statement as an appendix. They thought that the Committee could have gone further. They recommended, "unless Congress enacts comprehensive campaign finance reform legislation by the end of 1999 [that] the FCC should require broadcasters to provide 'free time' to national and local candidates for candidate-centered discourse."[73] Former FCC Chairman Newton Minow went even further:

> Digital broadcast licenses should not be awarded without a broadcaster's explicit commitment to provide public service time in campaigns and not to sell time. We now have a colossal irony. Politicians sell access to something we own: our Government. Broadcasters sell access to something we own: our public airwaves. Both do so, they tell us, in our name.[74]

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[g] Charles Benton, Frank Blythe, Peggy Charren, Frank Cruz, Robert Glaser, Richard Masur, Newton Minow, Jose Luis Ruiz, Shelby Schuck Scott, Gigi B. Sohn, Karen Peltz Strauss, Cass Sunstein, and James Yee.

Upon receiving the report, Vice President Gore said that if the broadcasters reject the voluntary call for free air time, the Administration will ask the FCC to act. He also asked Congress for support in the matter: "The President and I continue to believe strongly that there should be mandatory, universal free time for candidate centered discourse. It is unfortunate that the opposition from a few members prevented the Committee from adopting such a recommendation unanimously."[75]

Former Federal Communications Commission Chairman Reed Hundt and current Chairman William Kennard believe that the FCC can act on its own to institute a free air time proposal, especially with the support of the current Administration. At a March, 1997 forum on free air time sponsored by the Annenberg Public Policy Center, Hundt made these comments:

> The public, whether through its elected representatives or its regulatory agencies, has every right to ask broadcasters to make free time available. After all, the Communications Act requires the FCC to ensure that all spectrum users serve the 'public interest, convenience, and necessity.' . . . The Supreme Court has long recognized the FCC's broad discretion to define how users of the public's airwaves should meet the public interest goals of the Communications Act.[76]

Current FCC Chairman Kennard has the same philosophy as his predecessor. In February, 1998, he called for a rulemaking procedure to look at the issue: "I believe that this interpretation of the public interest standard is consistent with longstanding Commission and judicial precedent."[77] However, due to an outcry from some in Congress and other FCC commissioners, Kennard in March promised not to establish a rulemaking. In a letter to Congressional leaders, he wrote: "Given the importance of this issue to our democracy, however, I do not believe the Commission should undertake a rulemaking on free or reduced-rate air time without further consultation with Congress and assurances that there is a broader consensus for Commission action."[78] However, he did propose a Notice of Inquiry[h], which some observers see as a reasonable middle ground.

Kennard does not even have the full support of the Commission. At least two other commissioners, Susan Ness and Gloria Tristani, support looking at the idea. However, in an April 27, 1998 address to the Freedom Forum, Commissioner Michael Powell argued that the Commission does not have the authority to act unilaterally and that it should not act even if it did have that power.[79] Commissioner Harold Furchtgott-Roth has called Kennard's Notice of Inquiry "a terrible idea."[80]

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[h] A NOI is set up as a fact-gathering process only, whereas a rulemaking is a process by which changes are made to FCC rules.

Another recent proposal was part of the McCain-Feingold campaign finance reform bill (S. 25). The bill was voted down by the Senate in the fall of 1997, but both Senators John McCain and Russell Feingold won reelection in November, 1998, so there is little doubt that they will fight to bring the bill to the floor again. In fact, Feingold beat his opponent, Republican Mark Neumann, despite setting his own spending limit.[i] [81] The last version of the McCain-Feingold bill did not include any free air time provision (it was taken out in negotiations), but previous versions included it. Representatives Christopher Shays and Marty Meehan introduced companion legislation (H.R. 1776 and 1777) in the House. As introduced to the Senate, S. 25 included this provision: "Each eligible Senate candidate who has qualified for the general election ballot as a candidate of a major or minor party shall be entitled to receive a total of 30 minutes of free broadcast time from broadcasting stations within the candidate's State or an adjacent State."[82] The bill also required the air time to be available between 6 p.m. and 10 p.m. weekdays. The time could be used as the candidate elects in segments no shorter than 30 seconds or longer than five minutes. In addition, a candidate could not use more than 15 minutes on any one station.

Paul Taylor is a former *Washington Post* reporter who got disgusted with the political discourse in America after he asked Gary Hart the famous adultery question in the 1988 campaign. He founded the Alliance for Better Campaigns and the Free TV for Straight Talk Coalition. Both organizations try to improve the quality of discourse in campaigns, and free air time is one method they endorse. In his 1990 book, *See How They Run*, Taylor proposed what he called the "five minute fix:"

> Each major candidate for President should be given five minutes of free time a night – on alternating nights -- *simultaneously* on every television and radio station in the country for the final five weeks of the campaign. . . . In return for this grant of free time, each candidate would agree to one simple format restriction: He (or his running mate) would have to appear on the air for the entire five minutes.[83]

Since then, Taylor has revised his plan to include a national political broadcast bank. The content restriction of having the candidates appear in their own programs would still exist; Taylor's group argues that, "Studies show that this sort of direct, personal accountability increases the chance that ads will be substantive, accurate and issue-oriented."[84] Qualifying federal candidates and state and national political parties would receive vouchers from the broadcast bank for air time at any station of their choosing: "In politics as in media markets, one size doesn't fit all. Some races become hotly contested and eat up lots of advertising time. Others don't. . . . The voucher system is designed for flexibility and fungibility; it would allow the political marketplace to distribute free air resources with maximum efficiency."[85] Each broadcast station would be expected to contribute two hours of air time to the bank. At the Annenberg Center forum in March, 1997, Free TV for Straight Talk Coalition Chairman Walter Cronkite noted why it is so important to implement their ideas:

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[i] Feingold set a limit of $3.8 million, approximately a dollar for each citizen of Wisconsin. Neumann limited his spending to $4.7 million.

> Fact One: As television viewership has steadily increased over the last half century, the participation of the electorate in our presidential elections has decreased. It's almost a mirror image of that graph. . . . Fact Two: Buying access to this costly medium of television has strained the honesty and the integrity of the electoral process and all of those who participate in it.[86]

A prominent scholar who has weighed in on the subject of free air time is Larry Sabato, professor of government and foreign affairs at the University of Virginia.[i] He addressed the subject in his 1989 Twentieth Century Fund Paper entitled *Paying for Elections*. His idea was that as a condition for license renewal, stations would have to offer eight hours of free time to a broadcast bank. That time is then given out to the parties, not the candidates, to do as they wish. As Sabato writes, "A free-time requirement, the broadcasters insist, would unfairly deluge the metropolitan stations with demands that would virtually eliminate all other commercial spots from the air. . . . [But this proposal] neatly solves the problem, since the vast majority of stations will be accommodating just four (two state and two national party) entities."[87] He does argue against content restrictions, questioning their constitutionality; furthermore, his plan allows candidates to purchase additional air time.

CASE STUDIES

There have been a number of recent case studies involving free air time ideas: the 1996 election campaign, the 1997 New Jersey governor's race, and the 1998 California elections. These cases were selected due to their timeliness and the attention paid to them by scholars and public interest groups.

In February, 1996, Fox Television Chairman Rupert Murdoch announced that his television network would donate air time to the major presidential candidates to speak to viewers during prime time. Shortly thereafter, Walter Cronkite and Paul Taylor began urging other networks to follow suit. Their Free TV for Straight Talk Coalition proposed that the networks offer two- to three-minute

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[i] Sabato is a former Rhodes Scholar and Danforth Fellow and is the author of numerous books and articles about politics and political discourse. His two latest books are *Toward the Millennium* and *Dirty Little Secrets*.

segments with the following conditions: the candidates would appear on alternate nights, the candidates would speak directly to the camera the entire time (without other footage), and the segments would air on all networks simultaneously (what they referred to as "roadblocking"). Over the summer, the FCC exempted free time from the equal time requirement of the Communications Act of 1934. In September, a meeting between the campaigns and the networks was held. The campaigns agreed to the proposal, but the networks were skeptical of the value of free time.[88] In the end, each network did offer small segments of time to the presidential candidates:

	Total Air Time	**Schedule**	**Format**
PBS	12 segments, each 2:30	Just before 8 p.m.	Candidates on alternate nights. Candidates choose topics.
CNN	12 segments, each 2:30	During *Inside Politics*	Candidates on alternate days. Candidates choose topics.
UPN	12 segments, each 2:30	At end of local evening newscasts	Candidates on alternate nights. Candidates choose topics.
NPR-Audio	12 segments, each 2:30	During *All Things Considered*	Candidates on alternate days. Candidates choose topics.
CBS	4 segments, each 2:30	During *CBS Evening News*	Candidates back to back. Candidates answer specific questions.
Fox	10 segments, each 1:00	Between 7:30 p.m. and 9:30 p.m., three times a week	Candidates back to back. Candidates answer specific questions.
NBC	5 segments, each 1:30	During *Dateline NBC*	Candidates back to back. Candidates answer specific questions.

Source: Alliance for Better Campaigns

The Annenberg Public Policy Center at the University of Pennsylvania conducted research on free air time in the 1996 election. They did a content analysis of the segments and a national survey of registered voters.[k] "Our content analysis suggests that free time contributed positive discourse and useful information to the campaign. And our national survey of registered voters indicated that free time viewers found the segments helpful."[89] Based on their research, they came up with a number of conclusions:

> (1) In free time, candidates criticized by comparing; (2) In free time, candidates criticized with evidence; (3) In some cases, free time was more accurate than debates and ads; (4) Free time used less inflammatory language than ads; (5) Free time viewers found the segments helpful; (6) Free time had proportionately more policy information than

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[k] The national telephone survey was conducted in four waves: Oct. 3-6, 1997 (*n*=608), Oct. 10-15 (*n*=1,013), Oct. 17-23 (*n* =1,031), and Nov. 6-12 (*n* =1,026); it was conducted by Chilton Research Services.

comparable broadcast news reports; (7) Free time provided information news did not; (8) The free time audience paled in comparison to the audiences for debates and ads; and (9) Free time did not drive viewers away [based on ratings information].[90]

Also during the 1996 campaign, broadcasting company A.H. Belo Corporation offered free time to local congressional and gubernatorial candidates on its six television stations in five states. Seventy-one candidates participated in the program that offered them five minutes of air time. The candidates had to come into the station and answer the question, "Why do you think the voters of this district or this state should vote for you?" Michael McCarthy, General Counsel for A.H. Belo, said that in the increasingly competitive marketplace, local public interest programming is their future: "The concept is, if we provide a critical mass of news and public affairs and non-entertainment programming, the political advertising we're talking about . . . are natural extensions of doing what we do best and doing what is competitive."[91] They are broadcasters who believe that free air time and public interest programming is part of their obligation, but that it can also make them more competitive.

The Annenberg Center also did a content analysis of thirteen television advertisements and fifteen free time segments from the 1997 New Jersey governor's race between incumbent Republican Christine Todd Whitman and Democrat Jim McGreevy. They found similar results to their earlier study of the 1996 campaign: "When candidates speak on camera [in free time], they are more accountable for the messages they disseminate and, as a result, less likely to attack their opponents."[92] Also, they found that "candidates were nearly twice as likely to offer a concrete proposal for action in free time as they were in ads" and that "In contrast to the ads, none of the claims in the free time messages could be called misleading or false."[93]

Lastly, an interesting experiment in free time was conducted in the 1998 elections. Bill Daniels, a cable operator of two systems in California, offered free time to congressional and gubernatorial candidates in the areas he serves. Candidates who accepted, and Daniels pointed out that it was truly voluntary, received about 50 spots per week on six networks. The Federal Election Commission granted Daniels special permission to donate this time because corporations are not allowed by law to make campaign contributions. Daniels plans to make the results of his experiment available to the National Cable Television Association and other groups.[94] Also during the 1998 elections, at least 103 commercial television stations across the country offered candidates short periods of free air time to make statements or answer questions (according to a survey by the Alliance for Better Campaigns).[95]

CONCLUSION

The arguments for trying some sort of free air time project are convincing. The fundraising race in politics is out of control, and this seems like one way to begin to fix it. Stephen Wayne writes, "The pattern of greater spending and electoral victories indicates that money contributes to success. . ."[96] Is that really a fair principle for democracy? Free air time also may help to improve the current political discourse, which is leaving millions of Americans disaffected. It is certainly not a panacea, but it is a place to start. The arguments against the proposals are coming from people who have a self-interest in maintaining the status quo. As Sabato writes:

> many congressmen . . . don't want to offend district broadcasters whose support or forbearance they perceive as being critical to their re-election. The understandable fear of 535 media-addicted elected officials has landed all previous free-time schemes in the junkyard of good ideas that were legislatively impractical. Any new proposal, however worthy, will obviously face a difficult uphill struggle.[97]

It appears that the political window of opportunity for this idea has passed for now, but citizens groups led by Curtis Gans and Paul Taylor are hoping they can still have an effect on the debate. If Vice-President Gore is elected president in 2000, perhaps the window will open again.

NOTES

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[3] Wayne 279.

[4] "Editorial Memorandum: Gore Commission," Alliance for Better Campaigns: http://www.bettercampaigns.org/documents/gorebkgrd.htm.

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[44] "Issue Brief: Free Air Time."

[45] *Free Air Time and Campaign Finance Reform.* (Philadelphia, PA: The Annenberg Public Policy Center of the University of Pennsylvania, 11 March 1997) 34.

[46] *Free Air Time and Campaign Finance Reform* 22-3.

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[55] Frederick G. Slabach, ed., *The Constitution and Campaign Finance Reform* (Durham, NC: Carolina Academic Press, 1998) 297.

[56] DeVore 7.

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[61] Carney (Nexis) 5.

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[64] Fritts 1.

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Media Convergence on the Internet

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What is media convergence? Like the phenomena the term is used to describe, its meaning evolves. The term was initially applied to media content. Scholars have long noted the similarity in news coverage between competing newspapers and even among newspapers, magazines and television (McCombs & Shaw, 1972; Gans, 1979). This tendency of news organizations, across media types, to duplicate content came to be called "media convergence" (Reese & Danielian, 1988). With the digital revolution we can see this process taking place at a new level. Beyond content similarities we are now seeing a convergence of media forms.

> Convergence is the coming together of all forms of mediated communications in an electronic, digital form, driven by the computers and enabled by network technology. Convergence presents profound challenges for the existing media order (Pavlik, 1998, p. 134).

Many who use the term today focus on the convergence of the technologies involved, and on corporate mergers which are accelerating these changes (Baldwin, McVoy & Steinfield, 1996; Pavlik, 1998). Roger Fidler (1997, p. 27) takes a different approach:

> A merger implies that two or more entities (for example companies, technologies, or media) are coming together to form a single, integrated entity. Convergence is more like a crossing of paths or marriage, which results in the transformation of each converging entity, as well as the creation of new entities.

Fidler emphasizes the coevolution and coexistence of different media forms. For example, television may have changed the way people use radio and newspapers, but it has not eliminated them. Fidler sees this as an ongoing process, with another "mediamorphosis" currently being driven by digital media.

Others aren't so sure. The pattern we've seen with film, radio, television and cable television might not apply in this case.

> Thus far in the history of media evolution, we witness a consistent pattern. New media emerge with different technical properties that are optimized to meet human needs. For the most part, the old media (such as radio) adjust, taking advantage of their technical character to survive by providing a unique new format. But everything changes with the Internet (Neuman, 1998, p. 240).

On the Internet is there any meaningful difference between content provided by print companies compared to broadcast outlets? Web sites run by broadcasters and print journalism companies have many similarities. With current bandwidth limitations, television companies which want a presence on the web must present most of their information as text, and many online newspapers are now using audio and video clips in their stories. In this digital medium, some of the old distinctions between print and broadcast do seem to be changing.

This study explores the differences and similarites between web sites run by print and broadcast companies, with special attention paid to two important features of the new medium – *interactivity* and *nonlinear storytelling*. A longitudinal approach is used to assess changes in the use of these features over time.

Interactivity

A focus of much attention in new media studies is interactivity. This term implies that a person is not merely reading or listening, but is also participating. Mass communication in such a system becomes a truly two-way process (Rice, 1984). Interactivity was identified long ago by researchers (Williams, Rice & Rogers, 1988) as the potential driving force towards widespread use of the new media. But what is interactivity? Sheizaf Rafaeli (1988, p. 118) believes the best definition is "predicated on the issue of responsiveness." It is not interactivity when a system is merely "two-way." The messages must be related to each other, or *respond* to one another.

One study (Newhagen, Cordes & Levy, 1995) found that the mere promise of interactivity was enough to spark interest. A request by NBC News for viewer e-mail prompted thousands of responses. The authors discovered that many of the electronic letters were written in an intimate style, and with the implicit assumption that a response would be forthcoming. In reality, responses were not given. In Rafaeli's terms this is quasi-interactive, or "reactive" (1988, p. 118). True interactivity, according to Rafaeli, requires responsive messages on both ends.

The potential benefits of interactive media provide a fertile ground for research. If the voice of the average citizen is enhanced, the goals of public journalism may be aided (Tankard & Ban, 1998). Some researchers believe that content recall is greater for users of interactive media (Schaeffer & Hannafin, 1986).

News web sites are offering a number of interactive, and quasi-interactive features. Some involve human beings on both ends of the interactive process, others involve human-to-computer interaction. Six interactive features are a part of this study. Archive searching allows users to enter keywords and find stories that contain them. A user poll allows users to "vote" on a topic and see the updated tabulation. An interactive "help" or FAQ (frequently asked questions) section allows users to select topics and receive answers about the using the web site. E-mail links to the news organization are usually provided, and some sites provides links to individual journalists. Some sites also have areas where a user can post a message which can be viewed or responded to by other users.

This study will not attempt to distinguish between quasi- and fully interactive features since that would require, for example, an examination of e-mail messages sent and received by an individual to see if they meet Rafaeli's "responsiveness" criteria. While the types of interactivity differ, each involves the user sending signals through a data line instead of simply receiving information. This makes the process substantially different from existing mass media.

Mass communicators may or may not take advantage of interactivity. The old one-way model may be easier, and more profitable. This is the view held by some authors, who believe interactivity will eventually be limited to home shopping and movies on demand (Drew, 1995). In such a scenario, the two-way flow of information afforded by the Internet will become a superhighway coming into the home and a tiny footpath just large enough for credit card numbers leading out (Besser, 1995). This study attempts to quantify the use of interactive features on news web sites, and to determine changes over time.

Nonlinearity

Web sites can be presented in a "multimedia" or "hypermedia" format. The user selects the items (called nodes) that he or she is interested in. These nodes (text chunks, photographs, audio clips, etc.) are held together by links. By choosing which links to follow, the user progresses through a web story in a nonlinear manner. It has been argued (Delaney & Gilbert, 1991) that this nonlinear presentation closely mimics the way human beings think. The human brain, the argument goes, does not operate in a linear fashion, but by "association." McLuhan foreshadowed this argument when he wrote, "It is an important aspect of the electronic age that it establishes a global network that has much the character of our central nervous system" (1964, p. 348). MIT researcher Janet Murray (1997, p. 7) believes hypermedia is the future of storytelling because "some kinds of knowledge can be better represented in digital formats than they have been in print." A story written in a hypertext format need not have one particular ending. If the writer designs it properly, it could have dozens of possible outcomes. The most obvious examples of this type of narrative are found in videogames. As Ted Friedman (1995) points out, these kinds of games make it difficult to define the categories of author, reader, and text. The cultural theorist's insistence that no text exists until it is engaged by the reader (user) becomes a truism when the reader is actually responsible for creating at least part of the text.

It can be argued that newspapers are laid out in a nonlinear way. The reader can skip from section to section, reading stories in any order he or she chooses. But individual newspaper stories are linear. To make sense, the reader must start at the beginning, and is rarely faced with options. Radio and television broadcasts are completely linear. Message producers limited by linear texts have to decide which information, which perspectives, which angles to include in their presentations. This necessarily constrains the communication process. The message is often tailored to the lowest common denominator and alternative perspectives on a topic are stripped away for clarity's sake. A nonlinear text, while still finite, can be designed so users with diverse backgrounds can navigate the text according to their individual needs and interests. As newspaper and broadcast companies move to the Internet are they using this new nonlinear style, or are they sticking with linear presentations? What trends can be identified?

THE RESEARCH QUESTIONS

This study focuses on two primary variables, interactivity and nonlinear storytelling. I am looking for an early indication of how these new features might affect the mass communication process. Here, then, are the specific questions to be investigated by this study:

RQ1: Do print and broadcast news organizations differ in the number and type of interactive features offered?

RQ2: Do print and broadcast news organizations differ quantitatively in the their use of nonlinear storytelling?

And specifically addressing the question of media convergence.

RQ3: If there are differences in the use of interactive features between print and broadcast web sites, do they decrease over time?

RQ4: If there are differences in the use of nonlinear storytelling between print and broadcast web sites, do they decrease over time?

METHODOLOGY

To answer research questions one and two, an analysis of news web sites is required. Research questions three and four ask about changes over time, so the analysis must take place over a long enough period that any change can be detected. First though, the sites to be examined had to be selected.

The content "universe"

Like cable television, the Internet lends itself to specialization. There are sports sites, business sites, and weather sites, just to name a few. But it is an assumption of this project that people will always rely on journalists to perform the "surveillance" function of mass communication. So this research focused only on journalism sites that attempt to cover all types of news, not one specialty. There are also web sites which collect news items from other sites, or merely provide links to them. We are not interested in these, instead focusing on creators of original content. The field is further narrowed to sites that are updated daily (if not hourly), and cover news in the United States. Still, hundreds of sites fitting these criteria were identified with the Internet search engines Yahoo and Lycos (many are local television stations and newspapers). The field was narrowed by restricting our attention to national news organizations. We eliminate all local television sites, and keep only 5 newspapers which have a national focus. Four of those newspaper sites correspond with the top 4 (non-specialty) newspapers by circulation. The fifth is an Internet-only national newspaper which claims to be (and appears to be) the first national Internet newspaper. So our content "universe" is limited to U.S. journalism web sites that contain *original* material on *general news* topics, updated *daily* , and which are *national* in scope. The 14 sites (run by print or broadcast companies) found are listed in Table 1.

Table 1
News Web Sites Examined

Print media sites	**Web Addresses**
Los Angeles Times	www.latimes.com
New York Times	www.nytimes.com
Nando Times	www.nando.com
USA Today	www.usatoday.com
Washington Post	www.washingtonpost.com
Time Daily	www.time.com
US News	www.usnews.com
Broadcast sites	
ABC	www.abc,com
CBS	www.cbs.com
CNN Interactive	www.cnn.com
Fox News	www.foxnews.com
MSNBC	www.msnbc.com
Online Newshour	www.pbs.org/newshour
National Public Radio	www.npr.com

The CBS web site did not have news when this project was begun; however, the company did have a web site with news run by its overnight news service (CBS UpToTheMinute) and it was used initially (www.uttm.com). The same was true for ABC initially with a news presence provided by ABC Radio only (www.abcradio.com).

Operational Definitions & Units of Observation

The entire web site was the unit of observation for interactivity. Coders looked for the availability of e-mail to the organization, e-mail to individual journalist, user polls, news search options, question and answer forums, and the publishing (posting) of viewer comments. Each counted as one point (maximum of one point), for a total score ranging from zero to six.

Individual stories were the units of observation for the measurement of nonlinearity. Each site's front page stories were coded. Some sites put no stories on their "main" page, offering a menu of sections instead. In these cases "top stories" was selected, if available, and if not, the front page of the national news section was coded. Stories which appeared in identical form (usually special reports) on subsequent coding days were counted only once. Internal links (if any) within each story were counted. A completely linear story, with no optional links, received a score of zero. Every optional link the story does contain counted as one point, although secondary links (and beyond) were not counted. Links which merely continued the story onto another page were not considered "nonlinear" links and were not counted (this technique was rarely used). One site (U.S. News in 1997) presented identical stories day after day, with the only significant change being the number of links. In this case, the story was counted only once, and a median number of links recorded.

Unit Sampling

A content analysis was conducted 1997, and repeated one year later in 1998. All sampling took place in March of the two years. A sample week was created by selecting every fourth day during March, with a randomly selected start. Each of the 15 sites was visited once on each of those seven days between noon and midnight eastern time. Care was taken to vary the time of day for each site visit throughout the month, although this was not a rigorous probability sampling. For 1997, this process yielded 635 story titles, although links to two were invalid and were not included in the study. The remaining 633 stories were coded. In 1998, this process yielded 551 story titles, with five bad links. The remaining 546 stories were coded.

Pre-test and reliability

A pre-test with two coders was conducted for each variable. On site interactivity, coder agreement was 91.7% (by Holsti, 83.3% by Scott's pi). For story nonlinearity, coder agreement was 99.9% (by Pearson's r).

RESULTS

The research questions concern differences between sites run by broadcast and print companies, and any changes that can be discerned over time. The 14 sites studied include 7 created by newspaper or magazine companies, and 7 created by television or radio organizations (MSNBC is a joint operation of Microsoft and NBC; however, the news content is provided by NBC so it is included in the broadcast category).

Interactivity

First we determined what, if any, differences there are between print and broadcast sites in the use of interactive features. In 1997 the 7 print sites averaged 3.4 interactive features each, compared to 2.7 for the broadcast sites. In answer to the first research question, in 1997 web sites run by print and broadcast companies did differ in their use of interactive features. The gap is primarily due to the difference in the ways e-mail is used at the sites. None of the broadcast sites in 1997 offered interaction with their journalists, while 3 of the print sites (*Washington Post*, *New York Times* and *Los Angeles Times*) do offer this feature. However, the gap in the use of interactive features is virtually gone one year later. The same is true if we compare only the newspaper and broadcast web sites. The results are shown in Figures 1 and 2.

Figure 1
Interactive Feature Totals by Media

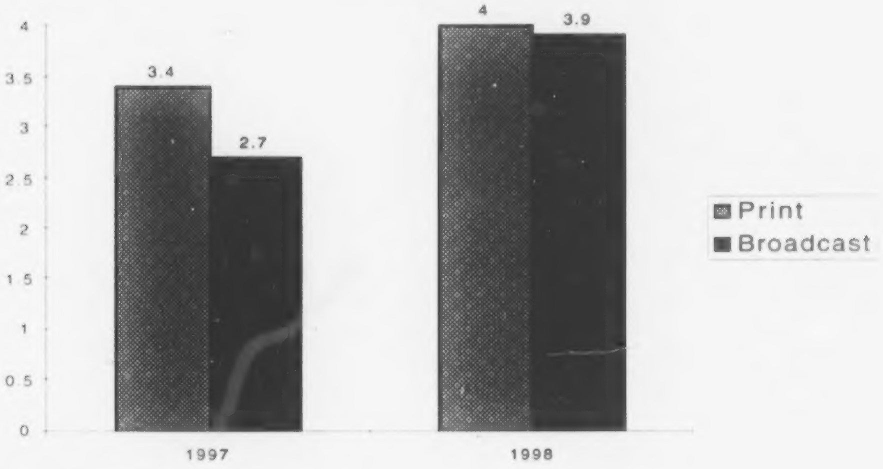
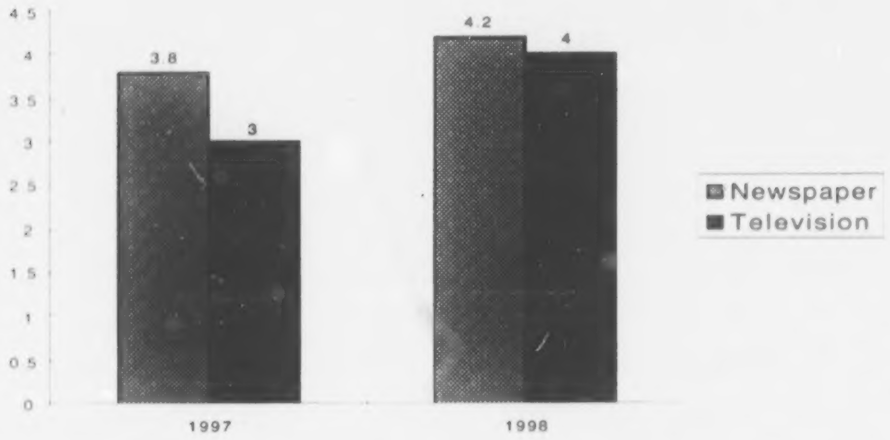


Figure 2
Interactive Feature Totals: Newspaper and Television



The answer to research question three is "yes." Based on these figures, the national media appear to be converging on the use of interactivity. However, there are some differences remaining which are not reflected by Figures 1 and 2. The print media, specifically the newspapers, are still more likely to offer e-mail links to individual reporters and editors than the broadcast outlets examined. And the commercial broadcasters are making greater use of non-scientific user polls than the print media.

Nonlinearity

In answer to research question two, there is a difference between national print and broadcast web sites on the use of nonlinear storytelling. In 1997, the 367 stories on print media web sites used an average of 1.5 links per story. The 231 stories on web sites run by broadcast companies used 2.6 links per story. This difference was statistically significant (t=-3.17, df=338, p=.002). A year later, both media were using more links, but the gap between them did not narrow, it increased. The 288 print stories coded in 1998 used just over two links per story, but the 231 broadcast stories used more than six links per story, again a statistically significant gap (t=-8.78, df=288.4, p<.001). The results are shown graphically in Figure 3, along with a direct newspaper to television comparison in Figure 4.

Figure 3
Links per Story by Media

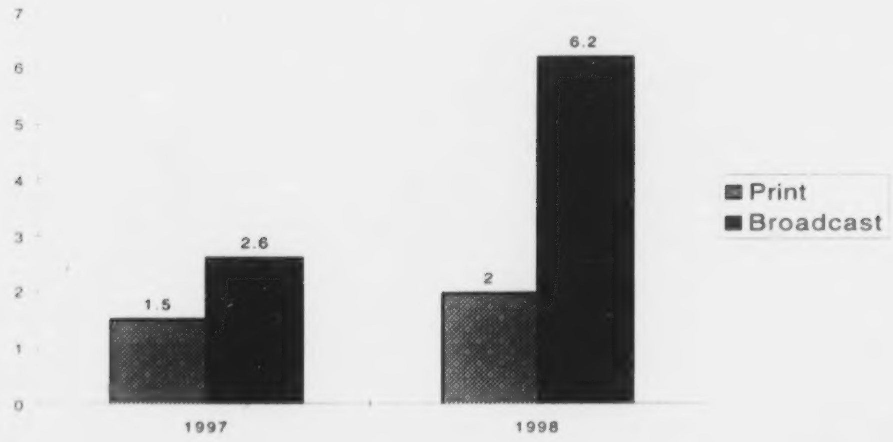
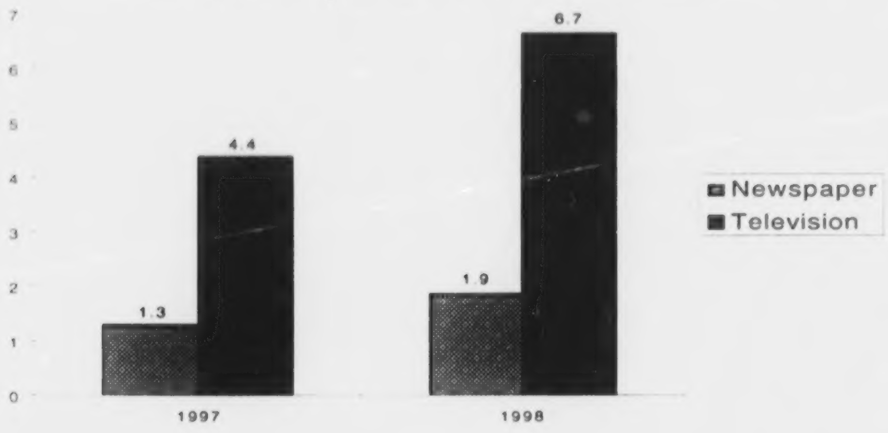


Figure 4
Links per Story: Newspaper and Television Sites

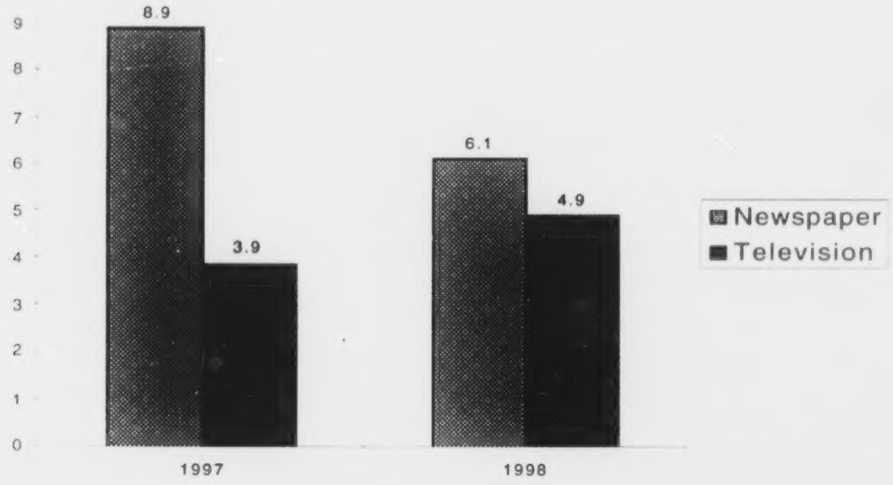


The answer to research question four is "no." On this variable, the national print and broadcast media are not converging at this time.

Top stories

There are other areas where the media do appear to be converging. One interesting development is the number of "front page" stories presented at each of the web sites. Figure 5 shows how the newspaper and television sites, far apart in 1997, moved much closer in 1998 in the number of stories shown on the main page.

Figure 5
Main Page Stories: Newspaper and Television



Conclusion

National media companies with news web sites are taking different approaches to the new medium. The newspaper sites examined in 1997 had many more stories on their front pages (about nine), than the television sites (about four). But those numbers are coming together. One year later, the newspaper sites averaged about six stories on their main pages and the television sites five stories. This type of convergence was also found for interactivity. In 1997, print sites were offering almost one more interactive feature (mean) than the broadcast sites. One year later they are essentially tied.

There remain some important differences however. Newspaper web sites are more likely to offer e-mail links to their reporters, while broadcast web sites are more likely to poll their users. Two newspapers (*Washington Post* and the *Los Angeles Times*) have come up with an interesting response to this trend toward user polls. On their web sites, users are asked to "vote" on a topic, but instead of their vote being tabulated, the user receives a display of that paper's "official" poll results and is told which group they would be in if they had taken part in the "real" poll.

On the use of nonlinear storytelling, the national print and broadcast media are not moving together, but are actually moving apart. The broadcast sites are using many more links per story (seven) than the print media sites (two). There are a few possible reasons for this. One is that the broadcast companies have greater access to audio and video clips, although this accounts for a relatively small percentage of the links offered. A more likely answer has to do with the construction of an online news story. The print media, for example the *New York Times,* usually use the same version on their web site as was published in their paper, with a few links added. The broadcast companies can't do this because a broadcast script is simply not suitable in printed form (although some local television web sites do use them as is). Instead, the broadcast web designers start from scratch, and this gives them opportunities to write their stories with links in mind from the beginning. In this sense, the advantage the print media has in already having their material in textual form might work against them. A notable exception is the *Washington Post* , which uses a lot of hypertext links in each story.

Further study needed

The unique features used in web publishing could influence journalistic content in the same way moving pictures and television began to change the news business 50 years ago. This study provides an initial look at how interactivity and nonlinear storytelling are being used. This study focused on well-financed national media companies. Web sites run by local newspaper and broadcast companies may show a different level of interactivity or use of nonlinear storytelling. Further research into these areas would be useful, particularly to see how news content of online publications is being affected.

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Credibility and Journalism on the Internet: How Online Newspapers Handle Errors and Corrections

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Credibility and Journalism on the Internet:
How Online Newspapers Handle Errors and Corrections

Abstract: The Internet, with its speed and unlimited capacity, poses several challenges for journalism--in particular, the issues of how to ensure accuracy and reliability of information, and whether the online medium might require certain journalistic practices to be redefined or modified. This paper examines how online newspapers are applying correction policies to the digital environment and the problems that arise, with the aim of pointing to issues that need to be addressed in online editorial policy.

Introduction

Online publications are on the rise, tapping the Internet as a publishing tool and a way to reach wide audiences. Yet online material is perceived, perhaps not wrongly, as inaccurate and unreliable (Johnson & Kaye, 1998; Sundar, 1998). Capacity for error is magnified on the Internet, where information moves at greater speeds and in larger amounts. This creates added time pressures for breaking stories and constant updates. One of the implications of the speed and capacity of the Internet is that the gatekeeping role of journalism is being eroded--it is becoming more difficult to verify all the facts that get reported and to present a correct and objective version of the news. Also, many journalists and writers are using the Internet as a research tool and sourcing mechanism (Simon & Napolitano, 1999). Such exchanges are informal and chain-like in effect, intertwining rumor and fact.

Given this scenario where there is a high possibility of error, the question becomes one of what can be done to ensure accuracy and reliability of information on the Internet. In journalism, one way of doing this has been through the use of correction policies and procedures. The Internet presents unique problems for corrections because of the many possibilities in which information can be framed (e.g. should online newspapers have a stand-alone corrections page), in which information can be changed or revised (e.g. should online newspapers point out corrections when the Web allows them to fix errors instantaneously), and in which information can be archived (e.g. how long should online corrections stay posted and should changes be dated). Another problem unique to the Internet world is that because the medium has become a convenient source of information, it lends itself to a kind of "journalism" where news gets passed on very quickly, with little attempt to verify all facts and correct any errors. If news is the first draft of history, online journalism is the first draft of news. These questions have bearing on evolving rules for journalistic practices in the online media, as well as legal matters that may arise from issues of journalistic accuracy, misrepresentation and defamation.

This paper examines whether online publications are applying correction policies to the digital environment, and how they might be doing so. The paper looks at how correction procedures are carried out and the problems that arise. It then highlights issues that have to be addressed in applying correction policies to the online world and points to some elements that might be covered in such policies. If well thought-out and used, correction policies might be one way of enhancing the reliability of a new medium that is both celebrated and criticized for the broad range of unfiltered information that it offers.

Literature Review: The Practice of Correction Policies

The legal dimension

Correction policies have been grounded more in practice than in theory, one of these aspects being in the practice of law. Correction statutes have their origins in defamation law, where the statutes spell out the steps a potential plaintiff must take to demand correction of allegedly defamatory material (Burke, 1997). These statutes usually state that a potential plaintiff must give written notice of correction to the publisher of the material. The timeliness of the written notice may determine the type or amount of damages that a plaintiff may receive. The statutes also usually have specifications on the timing, content and placement of the correction in the publication. Most of these statutes presently apply only to print, and radio and television broadcasting, although it is being debated whether such statutes should be extended to electronic communications through the Uniform Correction or Clarification of Defamation Act (*ibid.*). The proposed Act aims to encourage corrections and clarifications of false statements in all written, broadcast and electronic communications that could hurt a person's reputation (American Society of Newspaper Editors, 1998). It was formulated mainly for enactment by state legislators, although the principles behind it could potentially be applied to a more global context. The Act was passed in North Dakota in 1995 and other jurisdictions are considering it (*ibid.*). Thus, current correction statutes have mostly been applied in cases of defamation and do not reflect technological changes that have implications for online publishing. They also do not address other correction issues beyond defamation, such as more general concerns about accuracy of information and the presentation of news.

The journalistic dimension

In journalistic practice, most newspapers publish correction notices to acknowledge errors and have a standardized location for such notices. Editorial policies differ in terms of what constitutes an error, what errors are acknowledged and how to correct them (Barkin & Levy, 1983; Fowler & Mumert, 1988; Wamsley, 1988; Cremedas, 1992).

Errors are common fare for the daily newspaper, with typographical errors heading the list. In a comparative study of two major newspapers, the *New York Times* and the *Washington Post*, Barkin and Levy (1983) found that each newspaper averaged about one correction a day for the time under study. Most of the errors in both newspapers (87.7 per cent) were "objective-type errors", i.e. factual and typographical mistakes about times, dates, locations, titles and numbers, while 12.3 per cent were "subjective-type errors" to do with omission, misquotes, misleading headlines, and under- or over- emphasis. About two-thirds of the corrections (64.9 per cent) did not give explanations for the errors. The average time between publication and correction was slightly more than three days, and more than half the corrections (53.3 per cent) were ran within one day of the original, erroneous item.

Studies have also pointed to a link between corrections and the size of the newspaper--the larger newspapers being more likely to run corrections. Whitney (1986) studied the link between correction policies and corrections in 12 newspapers, comprising six national dailies and six smaller dailies. He found that all the newspapers had made corrections during the study period, that the number of corrections was related to the size of the newshole, that reporters and staff spotted more than half of corrected errors, that objective errors were corrected most often, that the newspapers corrected these errors fairly quickly, and that most papers did not have written policies.

Most newspapers have a correction policy and correction procedures in place, although they vary in the extent to which the policy is formalized and in the frequency of corrections. In a survey of 35 daily and 102 weekly Arkansas newspapers, Fowler and Mumert (1988) found that all but one of the 70 who responded reported publishing corrections. About 70 per cent reported having a correction policy and 24.2 per cent reported having a written policy. Some 34.2 per cent reported publishing a correction in the last 30 days, while 30 per cent reported publishing no corrections in the last 30 days, and the others reported publishing at least two or more corrections in the last month. Certain types of errors were more likely to be corrected than others--errors of omission (48.5 per cent), wrong figures (37.1 per cent), wrong dates (34.2 per cent) and typographical errors (32.8 per cent). In another survey of 223 editors of

US dailies and 35 members of the Organization of Newspaper Ombudsmen, Wamsley (1988) found that newspapers with an ombudsman were more likely to have a written, formalized corrections policy. The managing editor was the most likely person to decide whether to run a correction, and often, the writer involved was asked to help in writing the correction notice. The main reasons for running a correction were: identification error (74 per cent), missing information (55 per cent), reader's request (16 per cent), to avoid legal action (11 per cent) and wrong slant or emphasis (4 per cent).

While most of the research on corrections has been done on print journalism, Cremedas (1992) looked at correction policies in local television news by surveying 150 news directors at broadcasting stations. Most of the news stations (47 per cent) averaged one correction every other month, and 15.3 per cent averaged one per month. One positive correlation was found between corrections and market size--the larger the television market, the more likely the station was to correct errors. Almost two-thirds (60 per cent) reported that they did not have a formal correction policy, while just 12 per cent had a written policy. Respondents also reported that they were more likely to correct "objective-type" rather than "subjective-type" errors, although there were indications that larger TV markets were more likely to correct "subjective-type" errors than smaller markets.

In sum, most news organizations do run corrections, although they tend to correct "objective-type" errors more than they do "subjective-type" errors. Also, correction notices seldom come with explanations as to why and how the errors occurred. Few organizations have a formalized correction policy and even fewer have a written one. While most practitioners agree on the need to correct all substantive errors promptly and prominently, there is less agreement over what constitutes a "substantive" error. In deciding whether to correct an error, editors often consider such factors as local relevance, timeliness, weightiness, impact and context.

Conventional practice is not to correct minor errors of deviation, and to correct those that make a difference or need explanation, with some even publishing a correction only if it is requested (Wamsley, 1988).

The shift to online media

If journalism has not had an impeccable record of correcting errors in the print and broadcast media, then it may be said that this record has not been bettered in the shift to online media such as the Internet. This is in part a result of the free-wheeling nature of information on the Internet, and in part a result of how the Internet magnifies seemingly small technical errors.

The Internet has been a fertile ground for various hoaxes (e.g. the *Chicago Tribune* column by Mary Schmich that was mistakenly circulated as a graduation commencement speech by Kurt Vonnegut) and conspiracy theories (e.g. the Oklahoma City bombing and TWA Flight 800). If one were to pick up the virtual trail and wade through the various pieces of "evidence" on the Web, one is not necessarily left with a clearer idea of what happened--because stories that were apparently refuted do not go corrected and, in fact, continue to stand in opposition to the accepted versions.

Another example of the fluid content on the Internet comes in the form of the *Drudge Report*, which promotes a brand of journalism that does not believe so much in accuracy as the tenacity to find the "truth" and publish it. When *Brill's Content* reviewed 51 "exclusive" Drudge stories between January and September 1998, it found that 31 stories were actually "exclusive". Of these, 10 (32 per cent) were untrue and/or never happened, 11 (36 per cent) were true, and the remaining 10 (32 per cent) were debatable (McClintick, 1998). Yet the *Drudge Report* will also be remembered for some journalistic scoops that were accurate--it was the first to reveal that Jerry Seinfeld was demanding $1 million an episode for his sitcom, that Connie

Chung was being fired as the co-anchor of the CBS Evening News, and that NBC and Microsoft were joining to form MSNBC (*ibid.*) Other upstart online publications have since modeled themselves on the tactics and the apparent success of Drudge (Barringer, 1999). The paradox of the Internet is that "fact" and "fiction" can coexist and contradict each other, and that increased coverage does not mean increased understanding. This is not to say that contradictions do not exist in conventional news media, but that the Internet, with its unlimited capacity, speed and hyperlinking, increases the possible uses (and misuses) in the presentation of information. When certain versions of "truth" stand uncorrected, their existence gains some weight even as their legitimacy is doubted, and they contribute to the perception that information on the Net is unreliable.

In terms of form and publishing techniques, the Internet works in such a way that technical functions can have implications for the accuracy of content. The rush to break the story has seen errors of a different sort. On November 2, 1998, ABC News inadvertently posted its "mockup" US election results during a trial-run on its website, which gave the impression of a sound Democratic victory--a day before polls had actually opened (McKay, 1998). The error was explained as a "technical glitch"--abcnews.com uses a staging server to hold the prepared news before posting it live, but they were apparently unaware that the ticker function uploads information directly. The erroneous material has since been removed, although a copy has been captured by the Drudge Report (http://www.drudgereport.com/abc1.htm). A similar slip-up occurred in October 1995, when Pathfinder pronounced O.J. Simpson "guilty" in his criminal trial moments after the jury had acquitted him. Then in June 1997, abcnews.com posted that Oklahoma City bombing defendant Timothy McVeigh was guilty approximately an hour before the jurors had made their verdict known (Bunn, 1997). While it may be common practice for news organizations to prepare alternate headlines and stories should an event go either way, so that they can get the news out as fast as possible, the Internet context means that technical errors take on an added importance than they do in the physical world.

Errors are not, of course, unique to the digital media--even the traditional wire services have had their share of blunders. United Press International (UPI) "scooped" the world by announcing on its wire in 1918 that the World War was over, when in fact the news are premature--by several weeks. Some observers recall this as one of the worst media mistakes of the century. Then there was the case of how Associated Press (AP) incorrectly reported that Pope John Paul II had died of his wounds when he was shot in 1981 by a would-be assassin, and had to offer a correction. AP also "killed" Marshall Tito, former leader of Yugoslavia, by erroneously putting hit obituary to wire some 20 years ago and causing armies to actually mobilize in several countries (Adler, 1998). Even the editorial page of the influential *Wall Street Journal* has been shown to have contained a significant amount of errors (Lieberman, 1996).

What is new about the Internet is that it, perhaps more than the other media to date, represents the idea of continuous performance--text, images, audio and visual elements, and the sourcing and production processes that meld them all together, are being made more transparent as they converge on the same infrastructure. Applying this to journalism, it means that the medium is increasingly self-reflexive and, potentially, self-correcting. If the speed and instantaneous nature of the Internet increases the chances of mistakes being made, it also means that, theoretically at least, that same rapidity can be used to correct those mistakes. The focus then shifts to whether the same features that contribute to the perceived unreliability of the Internet can be used to increase reliability of information, and whether online publications are correcting errors even as they are being made. In this light, this paper turns to the following research questions:

1. Do a large number of online publications have correction policies?

2. What aspects do these correction policies cover?

3. What kinds of errors occur most often in online publications?

Methods

The research questions were addressed through e-mail interviews with practitioners from US-based online newspapers--for the reasons that US newspapers form the majority of online publications that have gone on the World Wide Web (57 per cent) (Meyer, 1998), and that the US has traditionally held the lead in the development of journalistic practices.

A sample was created using a directory from the American Journalism Review (AJR) Newslink (http://ajr.newslink.org/news.html), which lists some 4,925 newspapers online as of September 1998. The sample included all the national dailies, all the metropolitan dailies, and seven dailies from each state (with some states having fewer than seven)--giving a total of 319 online newspapers.

The websites of these newspapers were visited in order to note the presence/absence of a correction policy online and to identify the person responsible for the form and content of the website. In most cases, this person was either the new media manager, the online editor or the webmaster. Request for interviews were sent to these practitioners via e-mail. Those who agreed were then sent the questions (listed in Appendix A). Up to one reminder was sent to those who had agreed but had not sent back their responses. The interviews were conducted over two months from November 1, 1998 to January 10, 1999. A total of 94 replies were received for a response rate of 29.5 per cent. The breakdown of the number of replies was: 7 national newspapers (7.4 per cent), 16 metropolitan newspapers (17.1 per cent) and 71 state dailies (75.5 per cent).

Analysis of Findings

Presence/absence of correction policy

Of the 94 responses, 64 (68.1 per cent) had a correction policy, 17 (18.1 per cent) did not but ran corrections as needed, and 13 (13.8 per cent) did not have a policy and did not run corrections. The presence/absence of a correction policy among the national, metropolitan and state dailies (the breakdown being an indication of the size of the newspaper) is shown in Table 1 below.

Table 1: Presence/absence of correction policy by type of online newspaper

	Yes	No	No but corrections made
National (7)	5 (71.4%)	1 (14.3%)	1 (14.3%)
Metropolitan (16)	10 (62.5%)	0 (0%)	6 (37.5%)
State (71)	49 (69.0%)	12 (16.9%)	10 (14.1%)

Most of the correction policies were fairly recent, having been in existence for about two years. The policies were usually set up at the same time that the online version of the newspaper was started. The distribution is shown in Table 2 below.

Table 2: Length of time correction policies have been in existence

More than 3 years	4.4 per cent
2-3 years	24.4 per cent
1-2 years	51.1 per cent
Less than 1 year	20.0 per cent

(Percentages do not add up to 100 because of rounding off.)

A majority of the correction policies (50.8 per cent) were introduced as an extension of the correction policy for their print versions. The main reasons cited were: an error that prompted the need for a correction policy (18 per cent), the need for consistency (13.1 per cent) and the need for accuracy and accountability (11.5 per cent). Other reasons included: to avoid libel (3.3 per cent), publisher's request (1.6 per cent), and article in trade publication on the subject of corrections (1.6 per cent).

While most online newspapers reported having a correction policy, few had a written policy and even fewer featured their policy online. Of the 64 who had a correction policy, 17.2 per cent (11) had it written and 73.4 per cent (47) did not. None of the national newspapers featured their policy online, while one metropolitan newspaper reported having its policy online, and two state dailies had their policies online. These policies took the form of a a straightforward paragraph stating that the newspaper corrects errors and that readers may bring errors to the attention of the newsroom by calling or e-mailing. There were standard sections for correction notices, although the notices were not linked to the articles in question. Table 3 below shows the presence/absence of a written policy among the different newspapers.

Table 3: Presence/absence of written policy by type of online newspaper

	Written	Not written	No response
National (5)	1 (20%)	3 (60%)	1 (20%)
Metropolitan (10)	6 (60%)	4 (40%)	0 (0%)
State (49)	4 (8.2%)	40 (81.6%)	5 (10.2%)

Correction policies were usually communicated verbally among those who worked on the online publication (54 per cent), as most of the respondents reported having a small staff in the online department and therefore did not see a need to have a formalized policy. In 16 per cent of the cases, the online version of the newspaper was run by just one person. Other ways by which the correction policy was made known were: as part of work guidelines and checklists (12 per cent), mentioned during training (8 per cent), memos (6 per cent), and via e-mail (4 per cent).

Key elements and procedures of online correction policies

Most of the respondents (57.5 per cent) viewed online correction policies as the same as the policy for the print version. However, they also noted that the online version was being continuously published, and that corrections could be made any time, immediately, and in such a way that the online copy was always the most "perfect" at a particular point in time. Some respondents (7.5 per cent) said that the difference was in the location of a standard section for corrections--corrections are almost always in a standard location in the newspaper, whereas they are usually put into the relevant news categories on the Web.

There was considerable variance in how the online newspapers handled corrections. The most often-used method was to correct minor and typographical errors straight without running a correction notice, and to run a correction notice when it was a substantive error that needed clarification. It was also generally agreed that errors should be corrected as promptly as possible. As most online correction policies were seen as extensions of those for print, one of the main ways was to simply follow up on the corrections section from the newspaper and reflect that on the Web. Some respondents mentioned that the online version followed the "shovel-ware model" and that little was done in terms of following up on corrections based on the online version alone. That is, most online newspapers correct errors that were corrected in print, but do not go beyond by correcting errors that were not corrected in print. However, one respondent cited a case of how a reader spotted an error online, informed the newsroom, and the error was corrected before the newspaper went to print. Less common were practices such as including time stamps to show when stories had been corrected, providing explanations for errors, running editorial notes on stories that had been corrected, and linking correction notices to original stories. The various procedures was listed in Table 4 below.

Table 4: Online correction procedures

Correct with notice	30
Correct without notice	26
Follow from newspaper	23
Correct promptly	19
Update archive	13
Run editorial note	8
Link to original story	8
Have standard location	7
Provide explanation	2
Include time stamp	1
Run mea culpa editorial	1

(Note: More than one response was possible. Figures are absolute numbers.)

Like in previous studies, typos formed the bulk of errors that occurred (31.2 per cent). Other common errors were: wrong names (20.8 per cent), technical errors--e.g. non-functioning links and incomplete text (13 per cent), and factual errors (13 per cent). Table 5 gives the details.

Table 5: Errors that occur most often

Typos	24
Wrong names	16
Technical errors	10
Factual errors	10
Wrong dates and times	7
Wrong locations	4
Headline errors	4
Misquotes	2

(Note: More than one response was possible. Figures are absolute numbers.)

Problems in applying correction policies online

Most of the respondents had not encountered problems in applying their correction policies online, although some concerns were surfaced. The main concern was the lack of coordination between the newsroom and/or print editors and web operations and/or online editors. In some cases, it was felt that known errors were not communicated soon enough, and that the online product was often sidelined in favor of the print product. Another problem was posed by the possibility of wiping out errors. As one online writer noted, "errors large and small can be corrected at any time, erased into the ether as though they never happened" (Salkowski, 1998). Practitioners often had to make a judgment call on whether to run a correction notice or to correct an error straight without running a correction notice so that the copy appears error-free. Given the potential for information overload on the Web, it was not surprising that practitioners also experienced difficulties in tracking down stories and the exact locations of errors in stories. Complications arise when stories are not run in print but run online (and vice versa), when stories may have already been removed from websites, and when the same story may have been run in several different sections on the Web. Table 6 lists the various problems that were mentioned.

Table 6: Problems encountered with online corrections

Coordination between departments	9
Correct with notice vs. correct without notice	8
Difficult to trace stories and errors	8
Time-consuming	4
Errors not corrected promptly	4
Verifying errors as errors	3
Errors get repeated	1
Correction notice not linked to original story	1

(Note: More than one response was possible. Figures are absolute numbers. The figures are lower than the common errors in Table 5 because they only apply to those who reported running corrections and because they exclude those who reported no problems in running corrections.)

While most respondents felt that their current policy was sufficient and that there was no need to consider additional aspects at the moment, some suggestions were made:

1. To spell out the differences between minor and substantive errors;
2. To have a standard location for correction notices;
3. To decide whether archived articles should be "error-free" or come with correction notices;
4. To link correction notices to original stories;
5. To include editorial notes and time stamps, and to mark off corrected text in brackets;
6. To cover technical errors, e.g. database problems, malfunctioning scripts and non-functioning links, perhaps through a disclaimer; and
7. To have better coordination between news and web functions.

Comparison of correction policies in print and online media

It would appear that the issues over corrections faced by the online media are no different from those faced by the print media. While most practitioners from both media report having a correction policy, few have a written policy. Two previous studies pointed to a link between corrections and size. Whitney (1986) found that the larger the amount of newspaper content, the higher the number of corrections; Cremedas (1992) found that the larger the television market, the more likely the station was to correct errors. In this study, two estimates of the size of the online publication were used--the number of website hits per month and the classification of the newspaper as national, metropolitan or state. Among those who had a correction policy, the average number of hits per month was 970,000, while those who did not have a correction policy but ran corrections averaged 677,000 and those who did not have a policy and did not run corrections averaged 50,000. This suggests that the link between corrections and size was maintained. Using the distinction between national, metropolitan and state dailies, no clear patterns were found. More national dailies reported having a correction policy than metropolitan or state dailies, although more metropolitan dailies reported to running corrections even in the absence of a policy, and more metropolitan dailies reported to having a written policy than national or state dailies. Further research might examine how conventional geographically-based readership communities for newspapers play out in the online world, and whether this has any relation to the existence of correction policies, the running of corrections, or the perceived need to ensure accuracy.

Print and online newspapers are also similar in that explanations for errors are seldom given, and that the common errors are the "objective-type errors" to do with typos and facts rather than the "subjective-type errors" of omissions and misquotes. Both media have yet to fully resolve concerns over the distinction between minor and substantive errors and how to handle them. However, the online media, which allows a text to be continuously published and updated, raises interesting possibilities for the way corrections might be handled or mishandled. The question then becomes one of what additional issues need to be addressed in applying correction policies to the online world, and whether it makes sense to do so.

Implications for Editorial Policy

One of the key issues in applying correction policies to the online media has to do with whether 1) to simply correct the error without running a correction notice, 2) to let the error stand and run a correction notice, or 3) to both correct the error and run a correction notice. The choice of procedure is likely to depend on the type of error. Consensus among practitioners is that because it would be counter-productive to call attention to minor errors (and here the list covers typos, technical errors, wrong locations, and wrong dates and times), these can be simply corrected online without running a correction notice. But in the case of substantive errors (such as headline errors, misquotes, factual errors and omissions), a correction notice is warranted--whether the error is left to stand or whether it is corrected is a matter of editorial preference, although either method points to other steps that may have to be taken. If a correction notice is run and the error is left to stand, then there should be a means of permanently linking the correction notice to the article in question. One of the respondents in the present study raised concerns to as to whether search engines, which have been programmed to call up both the relevant article and the correction notice, actually do so most of the time. Thus, the efficacy of search and archival functions might have to be considered if this correction procedure is used. If a correction notice is run and the error is corrected, then it should be noted on the corrected article what the original error was, when it was corrected, and how the corrected portions now read. This may be done in various ways--such as running a notice under the headline that the story has been corrected, including a time stamp to indicate when the current version was posted, marking out the corrected text from the rest of the copy, or running an editorial note at the end of the story to explain the correction. As an example--wired.com handled an online correction by posting an editor's note that the story had been corrected (http://www.wired.com/news/news/email/explode-infobeat/culture/story/16906.html).

A second issue is whether online correction notices should be placed in a standard location, as is done in print. Here, what needs to be considered is not just the existence of a standard corrections section *per se*, but whether the corrections reach the audience that was exposed to the original version. In fact, one might question if a significant number of readers actually pay attention to the corrections section in newspapers or on newspaper websites. Some online newspapers have chosen not to have a standard corrections section, but to run correction notices under the relevant news categories that the articles in question appear. This suggests that consistency may be a more important factor, i.e. whether correction notices are prominent enough and whether readers know where to look for them, regardless of their form and presentation.

Third, the distinction between "objective-type" and "subjective-type", minor and substantive errors needs to be revisited--an issue that has also not fully resolved. Previous studies, as well as the present, suggest that the errors that occur most often and that are corrected most often are the objective-type errors. Yet paradoxically, journalistic tussles for some sense of truth are often fought over the subjective-type rather than objective-type errors. An extreme case of where subjective-type judgment might be needed is that of how the *New Republic* chose to deal with stories by Stephen Glass that were featured in its online version--stories that were found to be wholly or partially fabricated. The magazine decided to remove all his articles from its website, and posted a note "to our online readers" explaining its decision. The magazine justified its action by observing that an online version "is being continuously published, and that implies ongoing endorsement of its honesty and truthfulness", and that it would therefore be wrong to continue to publish the stories in its archive (http://www.thenewrepublic.com/magazines/tnr/archive/0798/072098/ourreaders072098.html). A point to note is that subjective-type errors may demand a different type of treatment--for example, running a clarification rather than a correction, or addressing the topic in the form of a news story. Most correction policies tend to be silent on the specifics of handling subjective-type errors, in part because the procedures vary by case. Perhaps more effort could be taken to articulate the policy on subjective-type errors so that the procedures can be consistently applied, and be transparent to the newspaper staff and their various publics.

Fourth, there is the problem of archiving online material and any related corrections that might go along with that material. Archives are often not accurate, and errors often get repeated and re-quoted because not as much diligence is given to updating databases after corrections are run (Feola & Leslie, 1994; Oakley, 1998). Most online databases in fact do not guarantee the accuracy or reliability of information archived. Databases such as Lexis-Nexis and DejaNews typically have a use policy disclaiming liability for any errors and omissions from their online services and materials.

Perhaps the larger question is whether the online medium is to be perceived and used as a medium of record. Some observers have pointed out that the strength of the Internet lies in its free-for-all, no-holds-barred nature. Here, the implicit assumption is that truth and good sense will prevail in the free marketplace of ideas where debates are continually fought and opinions tested. But this perceived strength of the Internet also weakens its reliability, because not every piece of inaccurate information can be uncovered or even corrected. To highlight this issue, Frank Sennett, editor of newcitynet.com, an alternative-press portal, has set up slipup.com, which features links to correction pages of online newspapers and links to articles about corrections (http://www.slipup.com). Newhagen and Levy suggest that "collecting information and certifying its factual accuracy is central to journalism." They further note that "it is difficult to imagine how this verification might work in a distributed architecture, and, in its absence, the burden of verification may thus shift back to the audience" (1998:17). If users accept the view that the Internet is inherently unreliable, then the onus falls on individuals to use their critical abilities and strategies for "reality" checking in an increasingly mediated environment.

Finally, while the present study has focused on online newspapers, there are far more areas of content on the Internet in which correction policies and corrections may be more or less relevant. Two areas are mentioned briefly. The first has to do with informal online publications and e-mail newsletters, which often function as a form of online journalism, but which are usually not held to the same accountability as is done in the journalistic community. To the extent that these publications become more widely read and accepted, some standards of accuracy and reliability would be needed. The second area is that of online listings and directories--for example, concerns have been raised about the "freshness" of information in online classified advertising (Lewis, 1998). Correction policies have traditionally been discussed in the context of journalism, but it may well be that the push of businesses to go on the Web will heighten the need for accurate information in other areas of corporate interest.

Conclusion

This paper has looked at how correction policies are being applied to online publications, and the problems that arise. In attempting to address the additional issues posed by the Internet environment, some possible elements of a correction policy for the online media is given in Appendix B. A postmodernist might argue that there is no one "truth" but different versions of "the truth", and that it would be counter-productive to correct errors on a medium that thrives on being a source of unfiltered, and sometimes inaccurate, information. When versions of "truth" are created so regularly on the Internet, then errors can be expected to occur, but they can also be expected to be acknowledged and corrected. It would be an irony if the Net, with its capacities for hyperlinking and archiving, is not well-used to improve the flow of accurate information, but simply used to add to the clutter of viewpoints that is symptomatic of this age of information overload.

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Appendix A

List of Questions Used

1. Does your online publication have a correction policy?

2. How long has the policy been in existence?

3. What prompted its creation?

4. Is the correction policy written?

5. Is the correction policy featured online?

6. How is the correction policy made known to those who work in your online publication?

7. What are the key elements of the correction policy?

8. How are the procedures carried out?

9. What kinds of errors occur most often in your online publication?

10. What are the problems that arise in applying the correction policy?

11. Can you give a specific example in which the correction policy was applied?

12. In what ways is the correction policy similar to that used for the print version of your publication?

13. In what ways is it different?

14. What other aspects do you think might be included in a correction policy for your online publication?

15. What is the estimated readership of your online publication?

Appendix B

Possible Elements for a Correction Policy in the Online Media

1. Corrections should be made as timely as possible.

2. Corrections should be as prominent as the original material so as to potentially reach the same audience that was exposed to the original material.

3. Corrections sections should be consistently and easily accessible to readers.

4. Minor, objective-errors (e.g. typos, technical errors, wrong locations, wrong dates and times) should be distinguished from substantive, subjective-type errors (e.g. headline errors, misquotes, factual errors, omissions).

5. Minor errors may be corrected straight without running a correction notice.

6. Substantive errors may require explanations and apologies, and may be corrected in a number of ways:

   i. Run a correction notice and link it permanently to the original article, ensuring that both items will always appear together when either one is called up.

   ii. Run a correction notice and at the same time correct the original article. In this case, the corrected version should indicate what the original error was, when it was corrected and how. This can be done by any or a combination of the following: running a notice under the headline that the article has been corrected, including a time stamp to show when the corrected version was posted, marking off the corrected text from the rest of the copy, or running an editorial note at the end explaining the correction.

Substantive errors may sometimes require different treatment, e.g. in the form of a clarification, update or new article. In all cases, a key criteria should be the accuracy of the presentation and the need to set the record straight on the original material.

7. Corrections should be included in archives to serve as a record.

8. Corrections should be tracked and regular reviewed.

9. A correction policy should be detailed in writing and communicated to all relevant staff, whether in training manuals, work guidelines or regular memos.

10. A correction policy should be consistently applied and transparent to staff (those who might be in a position to make an error) and public inquiry (those who might be in a position to request a correction or clarification).

Tracing the Evolution of Interactive Media and Funding Models through the Trade Press

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Tracing the Evolution of Interactive Media and Funding Models through the Trade Press

Abstract

Analysis of a five-year sample of trade publications suggests interactive media and funding models are stabilizing but still diverse. Sixteen types of interactive media were identified, but the World Wide Web has become dominant. Five funding models were analyzed. Advertiser Support dominates the advertising trade press, User Fees are the primary model in the computer/ telecommunication press, and more than half of all broadcasting/publishing articles mention multiple funding models.

Note: The author thanks Cara Stratman and Emanuella Marcoglou for their assistance in gathering data for this study. Both were graduate students at Boston University at the time this study was conducted.

Introduction

Media scholars and industry pundits have pontificated about interactive media for years. Carey (1989) suggested that the modern era in interactive media can be traced to the New York World's Fair in 1964, when AT&T demonstrated a picture telephone. In the 1970s and 80s the topic was videotex, a television-based technology that enabled two-way communication between content creators and viewers. In the United States, videotex technology never achieved popular acceptance and by 1986 the tests ended after disappointing losses (Ettema, 1989).

But despite the demise of videotex, hype about interactive media never died in the U.S. By the early- to mid-1990s, phone companies and cable companies were scrambling to define interactive media. Policy makers pondered questions about regulation. And everyone seemed to be asking what content these new interactive media would deliver. In 1994, Rebello and Wing asked these questions: "Will the hot ticket be dramas in which you guide the plot? Will it be game shows where all the viewers can compete for prizes? Maybe it's extracting additional information from a news program, sports show, or documentary with the click of a button. Or will it be just shopping electronically in the virtual mall?" Amidst these questions, Williamson (1995) observed: "So you want to make money on the Internet. . . . You've got company. Lots of it."

Where are we now? Is the interactive media market stabilizing? Are models for funding content emerging? This study addressed those questions by examining discourse about interactive media and marketing in the trade press.

Literature Review

The trade press has been found to be a valuable source of insight about evolving communication technology. For example, Brill (1996) found that discourse in *Advertising Age* provided insights into the evolution of cable television; Napoli (1997) found the media trade press was a good predictor of the diffusion of VCR technology. McMillan (1998a) found that early discourse in the trade publication *Printer's Ink* during the evolution of commercial radio questioned the potential of radio as an advertising vehicle. However, as radio began to evolve into a national medium carrying entertainment-based content and attracting large audiences, the trade publication reversed course.

Studies of trade press discourse and media development listed above focused on a single medium – cable TV, VCR, or radio. But interactive media present an interesting challenge. There have been questions about the medium itself. Will the primary vehicle for delivering interactive messages be a stand-alone system like a kiosk or CD-ROM? Will it be a proprietary system like the early videotex experiments or AT&T's ventures into interactive cable? Or, will it be an open system like the World Wide Web or e-mail? (Lyle & McLeod, 1993).

RQ1: How have the advertising, broadcasting/publishing, and computer/telecommunication trade press defined interactive media and how have those definitions changed over time?

Today, the cable TV model of funding from both advertising and subscription fees is rarely questioned. But, as Brill (1997) pointed out, some of the early discourse about cable TV saw it as piracy rather than as a viable advertising medium. Similarly, McMillan (1996) noted that early discussions of radio favored tax support, listener donations, or corporate philanthropy as the funding model for radio. Listeners and marketers alike initially opposed radio advertising.

Alternative funding models have been proposed for interactive media as well. The Advertiser Support funding model dominates much of the literature on interactive media and marketing (see for example Strangelove, 1994; Molenarr, 1996; Schwartz, 1997; and Ellsworth & Ellsworth, 1997). But alternative models also exist. A second model, User Fees, would fund content of interactive media with subscriptions or pay-per-use fees. Negroponte (1995) envisioned an information-rich environment as the future of interactive media and predicted that individuals will be willing to pay for delivery of personalized information that is gathered from that information environment.

A third model focuses less on content development and more on the role of communication in actually facilitating sales. This model, often referred to as E-Commerce, needs to be differentiated from the User Fee model. The User Fee model assumes that an individual pays directly for information in an interactive environment (e.g., subscription to an online magazine). The E-Commerce model assumes that information in the interactive environments is simply a tool that enables the individual to make a purchase decision. The item being purchased is outside of the interactive environment (e.g., flowers, airline tickets, etc.). In some cases, E-Commerce may involve purchase of information (e.g., books) but that information is delivered in a non-digital form. Negroponte (1995) would characterize the User Fees model as the delivery of "bits," the building blocks of the digital world; whereas, the E-Commerce model is characterized by the delivery of "atoms," the building blocks of the physical world.

Hoffman, Novak, and Chatterjee (1995) depicted the E-Commerce model as central to interactive media and marketing. Benjamin and Wigand (1995) also envisioned electronic markets as central to business of the future. Peppers and Rogers (1996) identified the ability to customize messages as key to future marketing efforts. They suggested that as marketers build long-term relationships with customers, the virtual marketplace will become a more welcoming place for the consumer and a more profitable place for the marketer. But, as Lynch and Lundquist (1996) pointed out, many challenges await marketers who wish to adopt the E-Commerce model.

Upshaw (1995) championed a fourth model for funding content: Brand Building. He suggested that marketers should build environments in which consumers can interact with brands.

These brand-building destinations are funded by marketers. They do not necessarily lead directly to sales. Rather, they are designed to lead to long-term relationships between consumers and brands which lead to long-term profitability. However, critics have expressed concern about the future of Brand Building in interactive media (Rust & Oliver, 1994) and about the challenges that researchers must face in evaluating brands in interactive environments (Stewart, 1992).

A fifth, and final, funding model has emerged in some of the literature. This model may be best characterized by the concept of Community Forum. McMillan (1998b) found that at many Web sites content is created by volunteers and non-profit organizations. In essence, this content is provided as a public service and is often intended to draw a community of people with similar interests. Rheingold (1993) was one of the earliest proponents of this low-budget, community-based model of interactive communication. However, Beniger (1987) warned that electronic environments could lead to the growth of pseudo-community that exploits rather than builds relationships. In summary, the literature suggests five types of funding may exist for interactive media: Advertiser Support, User Fees, E-Commerce, Brand Building, and Community Forum.

RQ2: What does the discourse in the advertising, broadcasting/publishing, and computer/telecommunication trade press reveal about evolving models of funding for interactive media content?

After evaluating both the media used for interactive communication and the models for funding content in those media, a logical question emerges. Are some funding models more likely to be applicable to certain types of media than to others?

RQ3: What relationships exist in the advertising, broadcasting/publishing, and computer/telecommunication trade press between interactive media types and funding models?

Methodology

A recent study (McMillan, in press) examined interactive media types and funding models based on a sample of articles from *Advertising Age*. That study examined the first five years of regular coverage of interactive media in that publication (October, 1993 through September, 1998). The primary finding was that the Web had become the dominant form of interactive media and Advertising Support had become the dominant funding model. However, as Napoli (1997) noted, the trade press that represents an industry that is threatened by a new media development may not be accurate in its predictions about the future of that medium. Furthermore, Klopfenstein (1989) cautioned against being overly optimistic about forecasting the likelihood of adoption of new interactive media. Thus, the recent McMillan study suggested that future studies should compare the coverage of interactive media and funding models in the advertising trade press with coverage in two other types of trade publications: broadcasting/publishing and computers/ telecommunication.

Samples of articles from these two types of trade publications were drawn from the Lexis/Nexis database. The researcher searched the Industry and Market News library in two categories: 1) Broadcasting and Publication News, 2) Computer and Telecommunication News. In both of these categories, the search was narrowed using the same five year period as the recent *Advertising Age* study: October 1993 through September of 1998. The author searched for the term "Interactive Media" in this sample frame.

A total of 511 articles that met the search parameters were found in the Broadcasting and Publication News category. Publications indexed by Lexis/Nexis in this category include: Editor & Publisher, Electronic Media, Folio: The Magazine for Magazine Management, Media Daily, Publishers Weekly, and Screen Digest. The *Advertising Age* study sampled approximately one-fourth of all articles published during the sample frame. Thus, the current study also examined one-fourth of the 511 articles in the Broadcasting and Publication News category. A table of random numbers was used to identify 128 of these articles for analysis.

A total of 1165 articles that matched the search criteria were found in the Computer and Telecommunication News category. Publications indexed by Lexis/Nexis in this category include: Byte, Communications Daily, Communications of the ACM, Computer Reseller News, Computerworld, Digital Media, Interactive Daily, InternetWeek, MacUser, Newsbytes, PR Newswire, TelecomWorldwide, Telephony, and Washington Telecom Newswire. A table of random numbers was used to identify one-fourth (292) of these articles for analysis.

To enable comparison with the earlier study, data from *Advertising Age* was included in the current study. A different sampling method was used in that study. The researcher drew a stratified random sample from the first five years of the *Advertising Age* Interactive Media and Marketing section, from October 1993 though September of 1998. The sample was drawn so that in each of the 60 months of the sample, one of the weekly sections was drawn at random. All articles in that section were reviewed. A total of 629 *Advertising Age* articles were reviewed.

Data from all three samples were combined to result in a total sample size of 1049 articles. For all articles in the sample, coders noted identifying information (e.g., title, author, date). In addition, coders noted the type of interactive media identified within an article. All media types were coded. An article might mention both the World Wide Web and CD-ROM in the context of interactive media. If so, both media types would be recorded for that article. Operational definitions of coded media are available from the author.

Finally, coders specified the funding model(s) that underlie the article. Funding models grew out of the literature reviewed above. Operational definitions for each are available from the author. In some cases, the funding model was explicit. An article might focus on how a company invested in a Web site for the specific purpose of Brand Building. At other times, the model might be implicit. An article might address the fact that media rep companies are beginning to represent Web sites. In this case, the funding model is not specified but the article clearly is based on the notion of buying and selling of media space which is indicative of the Advertiser Support model.

If more than one funding model were discussed in an article, all were coded. The same article might discuss consumer concerns about online shopping (E-Commerce) and also note an increase in brand-oriented marketer sites (Brand Building). If multiple funding models were explicit or implicit in an article, all funding models were noted. In some articles, no particular funding model could be identified. A news brief might mention a staffing change in the interactive division of an advertising agency. Coders were trained to indicate no funding model rather than to guess. This resulted in 250 sites (23.8%) coded as no funding model. Still, a relatively large sample of articles (799) were coded for funding model.

Three coders analyzed the articles. One, the author of this study, coded data from all three samples of trade publications. The other two coders were both graduate students who were trained in the concepts of the study. One graduate-student coder assisted with coding the *Advertising Age* articles. Approximately 10 percent of those articles were coded by both the graduate student and the author. Using Holsti's intercoder reliability formula, intercoder reliability of 89.4% was achieved. The other graduate-student coder assisted with coding articles from the Broadcasting and Publication News and Computer and Telecommunication News samples. Again, 10 percent of articles were checked for intercoder reliability using Holsti's intercoder reliability formula. Intercoder reliability for these articles was 92.5%. Disagreements were discussed and the coders came to agreement in cases where they had originally coded differently. In most cases, disagreements represented simple oversights by one of the coders. In all samples, the remaining 90 percent of the articles was independently analyzed by one of the coders.

Findings

RQ1: How have the advertising, broadcasting/publishing, and computer/telecommunication trade press defined interactive media and how have those definitions changed over time?

Sixteen interactive media were identified in this sample of trade publications. Table 1 summarizes the frequency with which each of these media were mentioned.

Table 1. Total Media Mentions

Medium	Mentions	Medium	Mentions
World Wide Web	568	Virtual Reality	27
Internet	202	Web TV	26
Commercial Online Services	195	TV Home Shopping	21
CD-ROM/CDi	163	Digital Imaging	15
Interactive TV	149	Audiotext	14
Game Systems	67	Video Conferencing	10
E-mail	46	Video Disk/DVD	8
Kiosk	30	Hypermedia	8

Note: If a medium was mentioned more than once in a single article it was coded only once.

Total number of different media mentioned in a single article range from one to eight; 41 percent of all articles mentioned multiple types media. The average number of media types mentioned per article was 1.50.

Five media types clearly dominate this list. They are explored in further detail in Tables 2 and 3. First, however, a few generalizations are in order about the other 11 media types. E-mail and WebTV were covered in all three types of trade publications. Kiosks and TV home shopping were most frequently found in the advertising trade press while audiotext was most frequently found in the broadcasting/publishing trade publications. The remaining types of interactive media: game systems, virtual reality, digital imaging, video conferencing, video disk/DVD, and hypermedia were most frequently found in the computer/telecommunication trade publications.

Table 2 summarizes cross tabulations of the five most-frequently mentioned media types with the three types of trade publications.

Table 2. Media Mentions by Type of Trade Publication

	Advertising	Broadcasting Publishing	Computer Telecom	Media Total	χ^2
World Wide Web	357 56.8%	68 53.1%	143 49.0%	568 54.1%	4.92 $p > .05$
Internet	42 6.7%	36 28.1%	124 42.5%	202 19.3%	171.65 $p < .001$
Commercial Online Services	122 19.4%	32 25.0%	41 14.0%	195 18.6%	7.74 $p < .05$
CD-ROM/CDi	74 11.8%	23 18.0%	66 22.6%	163 15.5%	18.50 $p < .001$
Interactive TV	95 15.1%	15 11.7%	39 13.4%	149 14.2%	1.24 $p > .05$

Note: percentages in table are the percent of articles that mentioned the medium. Some articles mentioned multiple media types. All media types were recorded.

The World Wide Web, which is mentioned in more than half of all articles, is clearly the dominant medium. No significant difference was found in the volume of coverage of the Web among these three types of trade publications. However, differences in coverage of other media did exist. Most notably, the computer/telecommunication trade press was far more likely than the other types of trade press to discuss the Internet (including FTP, Telnet and other non-Web functions) and CD-ROM/CDi technologies.

The broadcasting/publishing trade press was the most likely type of trade publication to discuss commercial online services – most often in conjunction with creating a news or entertainment "brand" on those services. Many broadcast and print organizations got their first experience in interactive media by establishing a presence on a service such as CompuServe or America Online (Cassino, 1996).

Interactive TV was mentioned in about 15 percent of all articles. No significant difference was found in coverage of Interactive TV among the three types of trade publications. However, it is interesting that the smallest percentage of coverage was in the broadcast/publishing press.

Table 3 summarizes cross tabulations of the five most-frequently mentioned media types with the five years of the sample period.

Table 3. Media Mentions by Year

	1993-94	1994-95	1995-96	1996-97	1997-98	Media Total	χ^2
World Wide Web	4 2.1%	72 36.0%	167 72.3%	183 73.2%	142 78.9%	568 54.1%	343.00 $p < .001$
Internet	20 10.6%	42 21.0%	43 18.6%	58 23.2%	39 21.7%	202 19.3%	12.61 $p < .05$
Commercial Online Services	48 25.5%	70 35.0%	39 16.9%	31 12.4%	7 3.9%	195 18.6%	74.05 $p < .001$
CD-ROM/CDi	59 31.4%	52 26.0%	28 12.1%	14 5.6%	10 5.6%	163 15.5%	87.18 $p < .001$
Interactive TV	76 40.4%	43 21.5%	11 4.8%	15 6.0%	4 2.2%	149 14.2%	166.72 $p < .001$

Note: percentages in table are the percent of articles in a year that mentioned the medium. Some articles mentioned multiple media. All media were recorded.

Significant differences were found in the way that each of these primary interactive media were reported over time. In the first two years of the sample, no single medium clearly dominated the sample. However by 1995-96, the Web had emerged as the dominant media form, a position it held through the remainder of the sample.

By contrast, Interactive TV began as a strong contender with 40 percent of all articles in 1993-94 mentioning this medium. But by the end of the sample, coverage had dwindled to 2 percent of stories and many of these indicated that Interactive TV was a technology that had never fulfilled its promise. Several of the later stories attempted to explain some of the reasons for the demise of Interactive TV. For example, a 1996 article noted that "Interactive television has been shunted into the background by uncertain economic models and consumer demand and by the immediate revenue opportunities presented by the Internet" ("Interactive TV Group Refocuses to Keep up with Dynamic Industry," 1996).

Coverage of the Internet changed significantly, but without a clear pattern of increase or decline. This may be due to mixed use of terms by journalists. At times they seem to have inaccurately equated the Internet with its graphical subset, the World Wide Web. Indeed, distinctions between the Internet and the Web are becoming ever-more blurred with the advent of technologies such as Web-based mail services. Nevertheless, Internet and Web technologies combined seem to have influenced the steady decline in coverage of other media such as commercial online services and CD-ROM/CDi. For example, *Electronic Marketplace* reported that many organizations have ceased to maintain a presence on proprietary services such as America Online and have chosen instead to set up shop on the Web with its lower cost and larger audience ("Web Advantages Keep Advertisers Coming Back," 1995). Similarly, Riedman (1997) reported that even the music industry (one of the primary users of CD-ROM technology) is experimenting with digital distribution via the Internet and World Wide Web.

RQ2: What does the discourse in the advertising, broadcasting/publishing, and computer/telecommunication trade press reveal about evolving models of funding for interactive media content?

A slim majority of the articles (51.3%) centered on a single funding model; however, the total number of funding models in an article ranged from none (in 23.8% of articles) through four. If a funding model was mentioned more than once in an article, it was only coded one time. The average number of different models mentioned in an article was 1.1.

Table 4 summarizes cross tabulations of the five funding models identified in the literature with the three types of trade publications. Articles that included more than one funding model are also cross tabulated with types of trade publications.

Table 4. Funding Model Mentions by Type of Trade Publication

	Advertising	Broadcasting Publishing	Computer Telecom	Model Total	χ^2
Advertiser Support	304 48.3%	54 42.2%	61 20.9%	419 39.9%	62.90 $p < .001$
User Fees	106 16.9%	36 28.1%	92 31.5%	234 22.3%	27.56 $p < .001$
E-Commerce	146 23.2%	17 13.3%	49 16.8%	212 20.2%	9.45 $p < .01$
Brand Building	107 17.0%	24 18.8%	74 25.3%	205 19.5%	8.87 $p < .05$
Community Forum	28 4.5%	8 6.3%	12 4.1%	48 4.6%	.99 $p > .05$
Mixed Models	148 29.2%	44 51.2%	69 33.5%	261 32.7%	16.22 $p < .01$

Note: percentages in table are the percent of articles that mentioned the funding model. Some articles mentioned multiple funding models. All funding models were recorded.

For both the advertising and broadcasting/publishing trade publications, Advertiser Support was the dominant funding model. However there were significant differences among the three types of trade publication and use of the Advertising Support model. Most notably, less than half as many of articles in the computer/telecommunication publications mentioned Advertising Support as did articles in *Advertising Age*.

The most common funding model found in computer/telecommunication publications was User Fees. A primary reason for this focus on User Fees is that many of the articles in this sample referenced CD-ROM/CDi technology, which most frequently is available to consumers for a fee, and online software that can be downloaded only after users pay a fee. User Fees were least common in the advertising trade press, but were a strong secondary funding model in the broadcasting/publishing publications. Attempts to generate revenue from User Fees in the broadcasting and publishing industries may be related to the Levins' (1997) observation about the financial fate of many online ventures: "Most of the world's 1,600 online newspapers are awash in red ink. A recent survey of newspaper publishers throughout the U.S. indicated that only 10 percent of those who have established digital news outlets are actually generating a profit from the operations."

The significantly higher-than-average number of broadcasting/publishing articles that mentioned multiple funding models is further support for the notion that traditional media are looking for multiple funding sources as they seek to become interactive. However, E-Commerce is mentioned significantly less frequently in the broadcasting/publishing trade press than in the other sampled publications. Thus, online purchases of non-digital items (e.g. promotional items such as media-branded caps and mugs) does not seem to be part of the mix for traditional media organizations.

By contrast, E-Commerce is the second-most-frequently mentioned model in the advertising trade press. Advertisers often viewed E-Commerce as the logical "next-step" to advertising. For example, Cleland and Carmichael (1997) warned advertisers that banner advertisements are not enough. They suggested that online advertising should incorporate direct marketing techniques that allow consumers to make an immediate online purchase decision.

Brand Building seems to be a relatively strong secondary funding model in all three of the types of trade publications. But it was the strongest in the computer/telecommunication industry articles where many articles addressed the business-to-business Brand Building that can be facilitated with interactive media (Emigh, 1997). Julie Schwerin, president of the industry market research firm InfoTech reported that "Like print, CD-ROM serves as both a publishing medium and a promotional tool" ("New Media Developers Tapping Innovative Marketing Strategies Using CD-ROMs," 1996). But computer/telecommunications industry publications also noted the potential brand-building function of interactive media at the consumer level as well. For example, when introducing its new Web site, Kellogg's announced that it was committed to creating an informative and fun environment that promotes one-on-one relationships between Kellogg and its consumers ("It's Fun to Put Snap! Crackle! Pop! into Your Web Page," 1995).

In all three types of trade publications, Brand Building was seldom the only funding model mentioned. For example, many of the articles in *Advertising Age* that mentioned the Brand Building model stressed the importance of moving beyond Brand Building to User Fees (Johnson, 1994) and/or E-Commerce (Cleland & Carmichael, 1997).

Of the five funding models identified in the literature, Community Forum was the least-frequently mentioned model found in an average of only 4.6% of articles. This low presence of the Community Forum model is consistent across all types of trade publications. Some early research suggested that interactive media may build consumption-based communities (Cerulo, 1992). The articles in this sample that did mention the Community Forum model most often envisioned those Community Forums as a way to attract advertisers. For example, Williamson (1996) presented a case study of ways in which iVillage has created a "space" in which groups such as parents, women, and people who work at home can share information and build "communities of interest" that can then be matched with advertisers who seek to communicate with the members of those communities. In announcing a new community-based site, one company asserted that "The Internet didn't invent community; it provided tools to extend it." The product announcement then goes on to explain that the new community-based Web site "provides tools for real communities to extend their richness and reach." The announcement concludes by noting that "the service is advertiser- and sponsor-supported and is free to the end user" ("CMG Information Services Launches The Password," 1998).

Table 5 summarizes cross tabulations of the five funding models identified in the literature in the five years of the sample period. Articles that included more than one funding model are also cross tabulated with publication years.

Significant differences were found in the way that most of the funding models were reported over time. The two exceptions were Community Forum which maintained a steady minority coverage over time and Mixed Models which were found in about one-third of all articles in each year.

In the first year of the sample, User Fees were the most-frequently mentioned funding model. But mentions of the User Fee model have been on the steady decline in the past five years. Even as early as 1994, research had begun to show that "the fact is, most consumers don't want to open their wallets for interactive media," (Fawcett, 1994). And by 1997, trade publications were reporting that "pay-per-view business models have hardly been a raging success for publishers operating in cyberspace," ("Interactive Media Briefs," 1997) while surveys reported that the number of users who were willing to pay for content was declining ("Consumers Expect Free Content," 1997).

Table 5. Funding Model Mentions by Year

	1993-94	1994-95	1995-96	1996-97	1997-98	Model Total	χ^2
Advertiser Support	43 22.9%	68 34.0%	108 46.8%	116 46.4%	84 46.7%	419 39.9%	37.99 $p < .001$
User Fees	57 30.3%	53 26.5%	44 19.0%	50 20.0%	30 16.7%	234 22.3%	14.48 $p < .01$
E-Commerce	43 22.9%	40 20.0%	37 16.0%	42 16.8%	50 27.8%	212 20.2%	11.55 $p < .05$
Brand Building	21 11.2%	23 11.5%	54 23.4%	59 23.6%	48 26.7%	205 19.5%	27.20 $p < .001$
Community Forum	8 4.3%	11 5.5%	14 6.1%	9 3.6%	6 3.3%	48 4.6%	2.78 $p > .05$
Mixed Models	42 33.1%	42 29.5%	55 28.1%	66 34.9%	56 38.9%	261 32.7%	5.58 $p > .05$

Note: percentages in table are the percent of articles that mentioned the funding model. Some articles mentioned multiple funding models. All funding models were recorded.

Advertising Support has come to be the most-frequently mentioned funding model appearing in about 46 percent of all articles in each of the last three years of the sample. Advertising seems to be the solution that many interactive media developers have turned to for providing "free" content to users while enabling the media developers to make money from those interactive media. *Advertising Age* projected 1997 Web advertising expenditures at $538 million ("Web Ad Spending in Spotlight Again," 1997) and analyst David Moore predicted that online advertising revenue would double or triple in 1998 ("New Media News," 1998). In the latter part of the sample, many of the articles that included the Advertising Support model focused on setting standards for Web-based advertising (Williamson & Hodges, 1996).

The Brand Building model experienced a slow but steady increase in coverage during the sample period. This increase may reflect the growing realization that not all interactive media ventures lead directly to profit. For example, some of the later articles in the sample discussed specific techniques that organizations can use for building their brands through the use of interactive media and public relations. Nora Paul, library director and Computer-Assisted Reporting expert at the Poynter Institute for Media Studies, said that Web sites are helping both reporters and public relations professionals manage the volume of press releases that go to the newsroom. Searchable databases enable journalists to locate experts who can provide comments on stories in progress and this in turn provides an opportunity for those "experts" to promote the brands that they represent (Noack, 1997).

Finally, E-Commerce seems to have experienced roller-coaster coverage in this sample period. In the first two years, E-Commerce was represented as a strong potential source of revenue and was covered in 20 percent or more of all articles. In the middle two years, coverage of E-Commerce dropped significantly. In 1995 through much of 1997, the trade press seemed to be reflecting the "common knowledge" that consumers were reluctant to shop through interactive media. But in the last year of the sample, E-Commerce seemed to re-emerge as a possible funding model for interactive media. Judy Neuman, vice president of interactive media at Eddie Bauer, Inc., seemed to summarize the opinion of many interactive media insiders when she postulated that Internet shopping, though still a long way from being a mass activity, had begun to explode. She said that in the Fall of 1996, buyers tended to place an order for one item "to see if it worked." But by the Fall of 1997, those "dabblers" seemed willing to do much more buying online and commonly order as many as for 12 items at a time (Machlis, 1997).

RQ3: What relationships exist in the advertising, broadcasting/publishing, and computer/telecommunication trade press between interactive media types and funding models?

To explore this question, the researcher correlated the five primary media types with the five funding models. To help ensure that correlations reflect actual relationships between media and funding models, all articles that mentioned multiple media types and/or multiple funding models were excluded from this analysis. Correlations are reported in Table 6 below. Kendall's Tau was used to look for significant relationships between media and funding models.

Table 6. Correlations between Primary Media Types and Funding Types

	Advertiser Support	E-Commerce	Brand Building	User Fees	Community Forum
World Wide Web	.35***	.10**	.22***	-.17***	.08**
Internet	-.06*	.01	.07*	.07*	.04
Commercial Online Services	.02	.10**	-.04	.14***	.08**
CD-ROM/CDi	-.15***	-.04	-.03	.22***	.02
Interactive TV	-.07*	.01	-.06*	.10**	-.01

* $p < .05$, ** $p < .01$, *** $p < .001$

Some funding models are clearly linked to specific media. For example, Advertising Support is strongly and positively associated with the World Wide Web while it has negative or non-significant relationships to all of the other four primary media types. Brand Building is also positively associated with the Web and its technological relative the Internet. But Brand Building was negatively associated with the now all-but-extinct interactive television.

E-Commerce was positively associated with commercial online services that were able to develop proprietary security systems early in their history. These systems helped to solve transaction-security issues. But, as the Web has developed and consumers have gained additional confidence in Web-based security systems, the Web has also come to be positively associated with E-Commerce. By contrast, the Web is negatively associated with User Fees (as noted earlier, Web users are not willing to pay for information) while commercial online services are positively associated with the User Fee model. While many commercial services have moved from a pay-per-minute model to a "flat rate" these proprietary systems still seem to be better able than the open Web to extract extra fees for additional information services.

CD-ROM/CDi seems to be associated almost exclusively with the User Fees model. This is a logical connection as these technologies contains digital information that is usually purchased by individuals who wish to play the game, acquire the educational material, or search the data-rich environment found on a digital disk. Interactive TV, a medium that dominated early coverage but has all but died out in recent years, also seems to have been based almost exclusively on the User Fees model. The advent of "free" interactive media such as the World Wide Web may have signaled the death knell of interactive TV.

Analysis of the Internet may be somewhat skewed by trends in reporting. Articles in 1994 and 1995 often used the term Internet to refer to an evolving medium that reporters still didn't understand. During this transitional period when the term Internet was used generically, reporters and their sources may have still been operating from the perspective developed for interactive TV that envisioned interactive media as being funded primarily by User Fees.

Finally, the Community Forum model is positively associated with both the Web and commercial online services. Both environments have the potential to offer individuals a "place" in which to express themselves. Home pages on the Web and personal pages created by subscribers to online services are examples of the type of "free" content which is designed to create online communities. However, as noted earlier, there seems to be a trend for many of these Community Forums to attract Advertising Support. Thus, one must wonder how open these forums will be to unpopular opinions – particularly if those opinions reflect negatively on potential advertisers.

Summary and Discussion

Near the start of this paper, two questions were posed: "Is the interactive media market stabilizing?" and "Are models for funding content emerging?" Based on the findings reported above, the answer would seem to be a qualified yes. With past media developments, the trade press has provided a good indicator of when a new medium begins to stabilize. Findings related to research question 1 suggest that the World Wide Web has come to be viewed as the primary type of interactive media. It would probably be incorrect to assume that there will be no further developments in interactive media. However, it seems that, at least for the present, the Web has developed into a relatively stable medium for the delivery of interactive messages.

Findings related to research question 2 suggest that experimentation with funding models continues. Advertising Support seems to be emerging as a dominant funding model appearing in an average of 40 percent of all articles in the sample. While Advertising Support clearly dominants the advertising trade press, User Fees are the dominant funding model in the computer/ telecommunication trade press. Within the broadcasting/publishing trade press more than half of the articles mention multiple funding models.

A primary reason for conducting the current study was to determine whether the advertising trade press differed significantly from other trade press samples with regard to coverage of interactive media and funding sources. Significant differences were found. This underscores the importance of examining multiple types of trade press when forecasting media futures (Napoli, 1997).

Advertisers have a vested interest in believing that advertising dominates any medium. If advertising is the dominant funding source, then media developers will be obligated to meet the demands of advertisers. Such demands include careful tracking and reporting of audience size and characteristics as well as standardized systems for buying and selling those audiences. By contrast the computer/telecommunication trade press serves primarily developers of information products and services that are designed for direct sale to the consumer. Thus, it is not surprising that articles in these publications focused on the User Fees model. Readers of broadcasting/publishing trade publications are the creators of media content. Many of these content creators have come to rely on multiple revenue streams for their traditional media operations (e.g. advertising combined with subscription and news stand revenues for newspapers and advertising combined with monthly fees for cable television) and thus are likely to look for multiple revenue streams in interactive media as well. This search for multiple revenue streams might be even more important as newspapers are faced with losing classified advertising revenue to other players (e.g. Monsterboard.com) in the interactive marketplace (Dellago, 1996).

Despite some differences in perspective in the different types of trade publications, the environment for interactive media seems to remain robust. Sixteen different types of interactive media were found in the sample used for the current study and five of those media were mentioned in 14 percent or more of all articles. All five of the funding models identified in the literature were represented in each of the five years of the sample, and all but one of those models (Community Forum) was found in an average of 20 percent or more of all articles.

Without question, the Internet and its graphical subset the World Wide Web became a major interactive media force in the five-year period examined in this study. All indicators in this sample of trade press articles suggest the Web will continue to remain a major force in the foreseeable future. However, the continued discussion of multiple funding models suggests that innovation and experimentation continues. Interactive media developers seem to be taking the advice of Steve Florio, president of Conde Nast: "In this age of escalating costs, we better take advantage of every revenue stream we can," (Ellwanger & Kerwin, 1995). Perhaps ongoing experimentation with multiple funding models is the dominant trend for the future. It may be unrealistic to expect interactive media to come to rely on any single funding source.

Exploration of research question 3 suggest that some types of interactive media might be more likely than others to obtain funding from specific sources. For example, CD-ROM/CDi technology seems to be based almost exclusively on the User Fees model in which the viewer pays directly for content. By contrast, the Web, Internet, and commercial online services all seem to support multiple funding models. Just as cable TV is based on a mixed model of Advertiser Support and User Fees, so the these technologies which are all based on interconnected computers may also be developing multiple funding sources.

Suggestions for Further Research

The research reported above is, by nature, somewhat exploratory. One of the key reasons for undertaking the study was to provide a benchmark of how interactive media evolved in the first five years of what may be seen as the "modern era" of interactive media. This study identified key media types and funding sources. Future studies should build on these basic classifications. For example, coding for valence of media mentions could be an important next step. Qualitative analysis of the data reported in this study showed that many of the "mentions" of interactive TV in the last two years of the study were commenting on the decline of that medium. But the simple coding technique used in this study was not sensitive enough to reveal this "negative" coverage.

Future projects should also include more analysis of implications of the trends in media and funding development. For example, what are the implications of what seems to be the growing trend to add Advertiser Support to Community Forum sites? Will the demands of advertisers place limitations on the types of content that can be developed in a Community Forum? Or, more broadly, will the demands of advertisers lead to the same trend of programming to the least common denominator that critics suggest has occurred in other media (Seiter, 1986)?

Finally, future research might also explore implications of evolving media and funding models on marketers. Potential questions include: How does investment in the Advertiser Support model impact on other marketing investments? Is money being diverted from other media, from sales and promotion budgets, or from some other source? How much value do advertisers get from sponsoring Web-based content? Are they gaining something unique by utilizing interactive media, or is the Web just an extension of traditional media?

This article provides a benchmark in recognizing the sea change that has occurred in the media environment during the final decade of the twentieth century. Interactive media have arrived. And, at least for the moment, the dominant medium seems to be the World Wide Web.

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"Son of CDA"
Will the Child Online Protection Act of 1998 Meet Constitutional Muster?

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Abstract

Congress has recently passed a second law to regulate on-line speech. Although arguably more narrowly tailored than the 1996 Communications Decency Act, the 1998 Child Online Protection Act (COPA) still suppresses a large amount of speech that adults have a constitutional right to receive. This paper compares the two laws and finds that while there are slight differences between the two laws, the differences are insignificant compared to the COPA's remaining constitutional defects.

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"Son of CDA"
Will the Child Online Protection Act of 1998 Meet Constitutional Muster?

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"I disapprove of what you say, but I will defend to the death your right to say it."

- Voltaire[1]

I. Introduction

The medium of the Internet allows unprecedented access to information and creates an unrivaled forum on which to place information.[2] At the same time, a good portion of the information available on the Internet is sexual in nature.[3] Courts have already applied obscenity law[4] to the Internet.[5] Despite judicial action, Congress still noted concern that the widespread availability of the Internet presents opportunities for minors to access "harmful material."[6] This concern fueled Congress' effort to pass the Child Online Protection Act ("COPA").

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[1] Voltaire (1694-1778), French philosopher and author. This quote paraphrases Voltaire's sentiments in his Essay on Tolerance, as stated in: Evelyn Beatrice Hall, under the pseudonym S. G. Tallentyre, THE FRIENDS OF VOLTAIRE (1907). In February 1770, Voltaire wrote to M. le Riche: "Monsieur l'Abbé, I detest what you write, but I would give my life to make it possible for you to continue to write." Voltaire denounced the French government's censorship, injustice, and despotism.

[2] *See* ACLU v. Reno, 929 F. Supp. 824, 881 (E.D. Pa. 1996). ("*It is no exaggeration to conclude that the Internet has achieved, and continues to achieve, the most participatory marketplace of mass speech that this country--and indeed the world--has yet seen.* The plaintiffs in these actions correctly describe the "democratizing" effects of Internet communication: individual citizens of limited means can speak to a worldwide audience on issues of concern to them.")(emphasis added).

[3] *See* John M. Moran, *WWW.Respect.Com? X-rated Web Sites Looking for Acceptance*, THE HARTFORD COURANT, Nov. 28, 1998, at A1. Adult sites are flourishing on the Internet. According to Forrester Research annual sales for the industry have grown to at least $750 million, and possibly as high as $1 billion. Mark Hardie, a senior analyst at Forrester said, "It's probably the third-largest industry on the Web, behind computers and entertainment.... It's going to continue to grow because it reflects the growth of on- line usage." A study by RelevantKnowledge, a Web traffic measurement firm, found that 43 percent of all Web surfers have visited an adult site at least once. Eight top adult sites had all seen more than 1 million unique visitors. Jeff Levy, RelevantKnowledge's chief executive said "Our research is confirming that this is a significant portion of what people are going to the Web for." At the same time, competition is increasing, some 20,000 to 30,000 adult-oriented Web sites are believed to be vying for business and more are arriving almost daily.

[4] *See* Miller v. California, 413 U.S. 15, 24-25 (1973). *See* discussion *infra* Part III A.

[5] *See* United States v. Thomas, 74 F.3d 701, 709 (6th Cir. 1996), cert. denied, 117 S. Ct. 74 (1996). Applying the obscenity standard to online material raises policy issues such as imposing a national standard of obscenity that adheres to the strictest community standard. This type of "lowest common denomination" of standards is antithetical to the notion of having community standards in the first place. *See also* Erik G. Swenson, *Redefining Community Standards in Light of the Geographic Limitlessness of the Internet: A Critique of United States v. Thomas*, 82 Minn. L. Rev. 855, 858. This Comment proposes that the geographic limitlessness of the Internet demands that "community" be redefined to a national standard for Internet-related cases, rather than a local one.

[6] H.R. 3783 §101(1), 105th Cong. (1998)(enacted). *See* discussion *infra* Part III A.

The Constitution generally forbids the Government from silencing speakers because of the content of their particular message.[7] The "harmful to minors" language included in the COPA raises constitutional concern because it criminalizes speech on the World Wide Web ("Web") that is constitutionally protected for adults.

The need for on-line responsibility in the computer age is clear.[8] Not even the pornography industry wants children to access inappropriate sexual material without their parent's consent.[9] Yet, a congressional mandate to regulate the availability of Internet content will not achieve the goal of keeping children from sexual material without also barring the access of adults or chilling speech. This paper will focus on the Child Online Protection Act and whether it could pass constitutional muster considering the strict scrutiny applied to the regulation of speech. Part II reviews the history of Internet regulations by examining the Communications Decency Act ("CDA") and its repeal through *Reno v. ACLU*.

Part III analyzes the Child Online Protection Act by explaining the language of the statute, its potential application, and its potential loopholes. This section will also consider alternative solutions to ensure that minors do not access harmful information on the Internet and whether the COPA creates a predictable basis for prosecution. After analyzing the COPA, part III will address the current legal status of the COPA in *Reno v. ACLU II*. Part IV examines the issue of free speech in a new medium, compares the Child Online Protection Act to the Communication Decency Act, analyzes their differences and similarities, and then lists the arguments for and against the COPA. The conclusion in part V proposes three rationales for why the Child Online Protection Act will not pass constitutional muster.

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[7] *See* R.A.V. v. City of Saint Paul, 505 U.S. 377, 381-82 (1992). Two of the exceptions to this general rule are obscenity, *Miller*, 431 U.S. at 15, and child pornography, New York v. Ferber, 458 U.S. 747, 774 (1982). The Government can and does impose criminal sanctions on people who engage in these forms of speech. 18 U.S.C. §§ 1464-65 (1994)(criminalizing obscene material); 18 U.S.C. §§ 2251-52 (1994)(criminalizing child pornography).

[8] *See* Caleb John Clark , *The 90s are the 60s*, (visited Dec. 10, 1998) <http://edweb.sdsu.edu/student/cclark/pub_online/demorant.html> ("Once we have laid a solid foundation of responsibility we can then accept nothing less than free speech.").

[9] *See* David Firestone, *Profile: At 29, An Elder Statesman Of Internet Erotica*, NEW YORK TIMES NEWS SERVICE, Nov. 6, 1998. Mark Tiarra is the president of United Adult Sites a trade association of adult Web sites. It has established a code of ethics for its 500 members and lobbied in Washington against restrictions like the Child Online Protection Act. "The Justice Department doesn't even know how it's going to enforce it," he said. "I've got a 2-year-old son, and I don't want him seeing these sites until he knows the difference between love and sex," Tiarra said. "Nobody wants kids on their sites. They cost you bandwidth, and they don't have a credit card to buy anything you have."

II. Regulatory History of Internet Indecency

Lawmakers said the intent of the Communications Decency Act of 1996[10] was to "halt the flow of pornography and other objectionable material on the Internet,"[11] and tacked it on to the Telecommunications Act of 1996.[12] The predecessor of the Child Online Protection Act, the CDA made it a felony to make indecent or patently offensive materials available on the Internet that might be accessible to children.[13] In 1997, the Supreme Court declared the CDA unconstitutional in *Reno v. ACLU*.[14]

A. Communications Decency Act

The CDA was to change the language of Title 47 of the United States Code, the Telegraph, Telephones and Radiotelegraphs law, by modifying Section 223, the obscene or harassing telephone calls section, in four ways.[15] First, the CDA expanded the scope of the telecommunications statute from telephones to "telecommunications devices."[16] Second, the CDA criminalized any legally obscene or indecent communication sent over a telecommunications device with the intent to annoy, abuse, threaten, or harass another person.[17] Third, the CDA criminalized knowingly creating or making available any legally obscene material through a telecommunication device.[18] Fourth, the CDA criminalized knowingly making or making available any "indecent" content to a person under the age of 18.[19]

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[10] Communications Decency Act of 1996, 47 U.S.C. § 223(a),(d) (1996).

[11] *See* Peter H. Lewis, *Judges Turn Back Law to Regulate Internet Indecency*, N.Y. TIMES, June 13, 1996, at A6.

[12] Pub. L. No. 104-104, 110 Stat. 56 30. Codified as amended in various sections of Title 47 of the U.S.C.. *See also* Deonne L. Bruning, *The Telecommunications Act of 1996: The Challenge of Competition* 30 Creighton L. Rev. 1255, 1255. The Telecommunications Act of 1996 is the most significant overhaul of the United State's telecommunications laws since 1934. President Bill Clinton signed it into law on February 8, 1996. Passed by a bipartisan Congress, the Telecommunications Act of 1996 opened virtually every sector of the telecommunications industry, including local and long distance telephone services, cable television, and equipment manufacturing to competition. The Act also made changes affecting the regulation of both radio and television, modified spectrum allocation, and created the Communications Decency Act.

[13] *See id.*

[14] *See* Reno v. ACLU, 117 S. Ct. 2329, 2350 (1997)

[15] 47 U.S.C § 223 (a),(d). The Communications Decency Act states, in relevant part:
(a) WHOEVER -
(1) in interstate or foreign communications
(A) by means of telecommunications device knowingly-

In addition to making the knowing transfer of certain materials to minors illegal, the CDA outlined affirmative defenses against the criminal provisions of the statute.[20] Specifically, the CDA considered the good faith restriction of minors from indecent material by reasonable, effective and appropriate actions an affirmative defense for content providers.[21]

(i) makes, creates, or solicits, and
(ii) initiates the transmission of;
any comment, request, suggestion, proposal, image, or other communication which is obscene or indecent, knowing that the recipient of the communication is under 18 years of age, regardless of whether the maker of such communication placed the call or initiated the communication... or...
(2) knowingly permits any telecommunication facility under his control to be used for any activity prohibited by paragraph (1) with the intent that it be used for such activity,
shall be fined under Title 18, United States Code, or imprisoned not more than two years, or both.
(d) WHOEVER -
(1) In interstate or foreign communications knowingly
(A) uses an interactive computer service to send to a specific person or persons under 18 years of age, or
(B) uses any interactive computer service to display in a manner available to a person under 18 years of age,
any comment, request, suggestion, proposal, image, or other communication that, in context, depicts or describes, in terms patently offensive as measured by contemporary community standards, sexual or excretory activities or organs, regardless of whether the user of such service placed the call or initiated the communication; or
(2) knowingly permits any telecommunication facility under such person's control to be used for an activity prohibited by paragraph (1) with the intent that it be used for such activity,
shall be fined under Title 18, United States Code, or imprisoned not more than two years, or both.

[16] 47 U.S.C. § 223(a)(1)(A). A telecommunications device in this instance applies to computers, modems, and the data servers and conferencing systems used by Internet sites and commercial providers such as America Online.

[17] 47 U.S.C. § 223(a)(1)(B), (a)(1)(C).

[18] 47 U.S.C. § 223(a)(1)(A)

[19] 47 U.S.C. § 223(d).

[20] 47 U.S.C. § 223(a)(1)(B), (e). Specifically, access providers would not be held liable for providing access to prosecutable material and employers would not be liable for providing access unless the employee's conduct was within the scope of employment.

[21] 47 U.S.C. § 223(e)(5)(A).

B. Reno v. ACLU

Forty-seven plaintiffs sought an injunction against the enforcement of the CDA.[22] The plaintiffs were a combination of civil liberties interest groups and Internet content providers. In *Reno v. ACLU ("Reno" or "Reno I")*, the district court granted the preliminary injunction and held that the CDA was unconstitutional.[23] Upon appeal, the Supreme Court acknowledged a valid government interest in protecting children.[24] Yet, the Court affirmed that the challenged provisions of the CDA violated the First Amendment since they burdened the rights of adults to communicate and receive indecent and patently offensive material over the Internet and affirmed the district court.[25] The Court gave Internet communications the most protection allowed under the First Amendment and analogously placed Internet speech in the same category of protection the print media has traditionally enjoyed.[26]

In reviewing the CDA, the Supreme Court closely followed the district court's reasoning and likewise concluded that the CDA was patently overbroad and an unconstitutional attempt to regulate the content of speech.[27] Adopting a medium specific analysis for the Internet, the Court applied a strict scrutiny standard of review to the CDA for vagueness and overbreadth. Under such scrutiny, the Court determined that although the CDA established a compelling interest it did so in a way that placed too great a burden on protected speech.[28]

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[22] *Reno*, 929 F. Supp. at 825-826. The 47 plaintiffs include: American Civil Liberties Union, Human Rights Watch, Electronic Privacy Information Center, Electronic Frontier Foundation, Journalism Education Association, Computer Professionals for Social Responsibility, National Writers Union, ClariNet Communications Corp., Institute for Global Communications, Stop Prisoner Rape, Inc., AIDS Education Global Information System, Bibliobytes, Queer Resources Directory, Critical Path AIDS Project, Inc., Wildcat Press, Inc., Declan McCullagh, Brock Meeks, John Troyer, Jonathan Wallace, Planned Parenthood Federation of America, Inc., American Library Association, Inc., America Online, Inc., American Booksellers Association, Inc., American Booksellers Foundation for Free Expression, American Society of Newspaper Editors, Apple Computer, Inc., Association of American Publishers, Inc., Association of Publishers, Editors and Writers, Citizens Internet Empowerment Coalition, Commercial Internet Exchange Association, CompuServe Incorporated, Families Against Internet Censorship, Freedom to Read Foundation, Inc., Health Services Libraries Consortium, Hotwired Ventures LLC, Interactive Digital Software Association, Interactive Services Association, Magazine Publishers of America, Microsoft Corporation, The Microsoft Network, LLC, National Press Photographers Association, Netcom On-Line Communications Services, Inc., Newspapers Association of America, Opnet, Inc., Prodigy Services Company, Society of Professional Journalists, and Wired Ventures, Ltd.

[23] *See id.* at 849-850.

[24] *See Reno*, 117 S. Ct. at 2350.

[25] *See id.*

[26] *See id.* at 2344. The Supreme Court found that the differences between the Internet and the broadcast media were sufficient to place the Internet in the same category of protection as the print media.

[27] *See id.* at 2329.

III. Child Online Protection Act

Like the CDA, Congress tacked the Child Online Protection Act on as part of a larger bill. The 105th Congress passed the COPA with the $500 billion Omnibus Appropriation bill for the fiscal year of 1999.[29] Despite warnings by the Justice Department that the bill had "serious constitutional problems," the President signed the bill into law on October 21, 1998.[30]

A. Reviewing the language of the Child Online Protection Act

The Child Online Protection Act of 1998 requires entities engaged in the business of distributing material via the Web to restrict the access of harmful material to adults.[31] There are five findings Congress explicitly refers to as the basis for adding this regulation to amend the Communication Act of 1934.[32] First, Congress found that while custody, care, and nurture of a child resides primarily with the parents, the widespread availability of the Internet presents opportunities for minors to access material through the Web in a manner that may frustrate parental supervision or control.[33] Second, Congress found that protecting the physical and psychological well being of minors by shielding them from the harmful material is a compelling government interest.[34] Third, Congress found that even though the online industry has developed innovative ways to help parents and educators restrict access to material that is harmful to minors through parental control and self-regulation, it has not provided a national solution to the problem of minors accessing harmful material on the Web.[35] Fourth, Congress found that the most effective and least restrictive way to satisfy the compelling government interest was to prohibit the distribution of harmful material at the source and then offer the sources legitimate defenses.[36] Finally, Congress found that it needed to continue efforts to find ways to protect children from exposure to harmful material found on the Internet.[37]

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[28] *See* Stephen C. Jacques, Comment, *Reno v. ACLU: Insulating the Internet, the First Amendment, and the Marketplace of Ideas* 46 Am. U. L. Rev. 1945, 1978 (1997).

[29] The Child Online Protection Act of 1998, 144 Cong. Rec. S12741-04 at S12793 (1998). Pub. L. No. 105-275 Codified as amended in 47 U.S.C. § 231.

[30] *See id.*

[31] H.R. 3783, 105th Cong. (1998) (enacted). Also available online (visited Dec. 10, 1998) <http://www.epic.org/free_speech/censorship/final_hr3783.html>

[32] H.R. 3783 § 101.

[33] H.R. 3783 § 101(1).

Based on these findings, Congress proposed and passed Section 231 modifying Title 47 of the United States Code requiring commercial Web operators to restrict access to material considered harmful to minors.[38] The COPA consists of two parts. Title I requires Web page publishers to evaluate material and to enact restrictive means ensuring that harmful material only reaches adults.[39] Title II of the COPA makes it a violation of privacy to collect the personal information of children who are online, without parental consent.[40]

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[34] H.R. 3783 § 101(2).
[35] H.R. 3783 § 101(3).
[36] H.R. 3783 § 101(4).
[37] H.R. 3783 § 101(5).
[38] 47 U.S.C. § 231. Section 231's title explicitly states bill's purpose is to create a "Requirement to restrict access by minors to materials commercially distributed by means of World Wide Web that are harmful to minors."
[39] 47 U.S.C. § 231(a). States in relevant part:
(a) REQUIREMENT TO RESTRICT ACCESS-
(1) PROHIBITED CONDUCT- Whoever knowingly and with knowledge of the character of the material, in interstate or foreign commerce by means of the World Wide Web, makes any communication for commercial purposes that is available to any minor and that includes any material that is harmful to minors shall be fined not more than $50,000, imprisoned not more than 6 months, or both.
(2) INTENTIONAL VIOLATIONS- In addition to the penalties under paragraph (1), whoever intentionally violates such paragraph shall be subject to a fine of not more than $50,000 for each violation. For purposes of this paragraph, each day of violation shall constitute a separate violation.
(3) CIVIL PENALTY - In addition to the penalties under paragraphs (1) and (2), whoever violates paragraph (1) shall be subject to a civil penalty of not more than $50,000 for each violation. For purposes of this paragraph, each day of violation shall constitute a separate violation.
[40] 47 U.S.C. § 202-207. The issue of privacy and child privacy is beyond the scope of this paper and thus will not be included as part of the analysis of the COPA.

BEST COPY AVAILABLE

A publisher that knowingly permits material on the Web that may violate the "harmful to minors" standard violates the COPA and faces criminal liability.[41] Intentional violations of the COPA results in increased sanctions.[42] In addition to criminal penalties, violators may also face civil penalties.[43]

Under the COPA, merely providing connection services to the Internet is not a use of the Web for "commercial purposes."[44] Specifically, Internet Service Providers and search-engine Web pages are exempt from being "commercial purposes" communicators.[45]

The COPA also includes an affirmative defense to prosecution for commercial Web sites.[46] Specifically, an information distributor must act in good faith to restrict minor's access through a variety of technological measures.[47] The technological measures described by the act include credit card verifications, debit account verification, digital age verification procedures, or any other technologically feasible and reasonable measure.[48] A good faith effort to restrict access of harmful material to adults protects commercial Web sites from litigation.[49]

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[41] 47 U.S.C. § 231(a)(1). Violators "shall be fined no more than $50,000, imprisoned not more than 6 months or both."

[42] 47 U.S.C. § 231(a)(2). Violators are "subject to fines, no greater than $50,000, for each violation and each day of violation constitutes a separate violation."

[43] 47 U.S.C. § 231(a)(3). "In addition to the penalties under paragraphs (1) and (2), whoever violates paragraph (1) shall be subject to a civil penalty of not more than $50,000 for each violation. For purposes of this paragraph, each day of violation shall constitute a separate violation.

[44] 47 U.S.C. § 231(b). What is referred to as an Internet Service Provider in the text is explicitly defined in the statute as the following:
(b) INAPPLICABILITY OF CARRIERS AND OTHER SERVICE PROVIDERS- For purposes of subsection (a), a person shall not be considered to make any communication for commercial purposes to the extent that such person is-
(1) a telecommunications carrier engaged in the provision of a telecommunications service;
(2) a person engaged in the business of providing an Internet access service;
(3) a person engaged in the business of providing an Internet information location tool; or
(4) similarly engaged in the transmission, storage, retrieval, hosting, formatting, or translation (or any combination thereof) of a communication made by another person, without selection or alteration of the content of the communication, except that such person's deletion of a particular communication or material made by another person in a manner consistent with [the affirmative defense section] shall not be considered an alteration of the content of the communication.

[45] *See id.*

[46] 47 U.S.C. § 231(c).

[47] 47 U.S.C. § 231(c)(1)(a)-(c).

In response to concerns that a technological screening method may violate the privacy of an Internet user, the COPA also includes a privacy protection requirement.[50] Commercial communicators cannot disclose any information collected about an individual during the age verification process without the individual's permission.[51] In limited circumstances, information may be disclosed without permission if it is necessary to complete the communication, to conduct a legitimate business activity, or in response to a court request.[52]

The definition section in the COPA explains basic terms of on-line technology,[53] as well as, the substantive meanings of the terms used in the statute.[54] The substantive language defined in this section includes "commercial purposes," "engaged in the business," and "material that is harmful to minors."[55]

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[48] *See id.*

[49] 47 U.S.C. § 231(c)(2).

[50] 47 U.S.C. § 231(d). Privacy Protection Requirements-
(d) Disclosure of Information Limited- A person making a communication described in subsection (a)--
(1) shall not disclose any information collected for the purposes of restricting access to such communications to individuals 17 years of age or older without the prior written or electronic consent of--
(i) the individual concerned, if the individual is an adult; or
(ii) the individual's parent or guardian, if the individual is under 17 years of age; and
(B) shall take such actions as are necessary to prevent unauthorized access to such information by a person other than the person making such communication and the recipient of such communication.
(2) Exceptions- A person making a communication described in subsection (a) may disclose such information if the disclosure is--
(A) necessary to make the communication or conduct a legitimate business activity related to making the communication; or
(B) made pursuant to a court authorizing such disclosure.

[51] 47 U.S.C. § 231(d)(1).

[52] 47 U.S.C. § 231(d)(2).

[53] 47 U.S.C. § 231(e)(1). "By means of the World Wide Web" means by placement of material in a computer server-based file archive so that it is publicly accessible, over the Internet, using hypertext transfer protocol or any successor protocol. 47 U.S.C. § 231(e)(3). "Internet" means the combination of computer facilities and electromagnetic transmission media, and related equipment and software, comprising the interconnected worldwide network of computer networks that employ the transmission Control Protocol/Internet Protocol or any successor protocol to transmit information. 47 U.S.C. § 231(e)(4) "Internet Access Service" means a service that enables users to access content, information, electronic mail, or other services offered over the Internet, and may also include access to proprietary content, information, and other services as part of a package of services offered to consumers. Such term does not include telecommunications services. 47 U.S.C. § 231(e)(5) "Internet Information Location Tool" means a service that refers or links users to an online location on the World Wide Web. Such term includes directories, indices, references, pointers, and hypertext links.

[54] 47 U.S.C. § 231(e).

Prosecutable Web pages are limited to pages with a "commercial purpose" or "engaged in the business" of making available communication that is harmful to minors.[56] The "commercial purpose" or "engaged in the business" definition applies to one who knowingly causes or solicits material for posting on the Web and who devotes time, attention, or labor to those activities as a regular course of business.[57] The objective of earning a profit must be a part of the commercial activities, but it is not necessary to actually make a profit from the communication or that the communication be the principal source of income.[58]

Under the COPA, prosecutable material is "material that is harmful to minors."[59] The "minors" protected by the COPA are any persons under seventeen years of age.[60] The statute defines the "harmful to minors" standard as any communication, picture, image, graphic image file, article, recording, writing or other matter of any kind that is obscene[61] or that meets the following three requirements.[62] First, that the average person, applying contemporary community standards, would find, taking the material as a whole and with *respect to minors*, is designed to appeal to, or is designed to pander to, the prurient interest.[63] Second, that the material depicts, describes, or represents, in a manner patently offensive *with respect to minors*, *an actual or simulated sexual act or* sexual conduct, *an actual or simulated normal or perverted*

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[55] *See id.*

[56] 47 U.S.C. § 231(a)(1).

[57] 47 U.S.C. § 231(e)(2)(A).

[58] *See id.*

[59] 47 U.S.C. § 231(a).

[60] 47 U.S.C. § 231(e)(7).

[61] 47 U.S.C. § 231(e)(6).

[62] 47 U.S.C. § 231(e)(6)(A)-(C).

[63] 47 U.S.C. § 231(e)(6)(A). Emphasis added.

sexual act, or a lewd exhibition of the genitals or post-pubescent female breast.[64] Third, that the material taken as a whole lacks serious literary, artistic, political, or scientific value *for minors*.[65]

Except for the language in italics, the "harmful to minors" test as defined in the COPA identically duplicates the obscenity test found in *Miller v. California*.[66] The *Miller* three-part test defines obscenity as the following. First, whether the average person, applying contemporary community standards, would find that the material taken as a whole, appeals to prurient interest.[67] Second, whether the work depicts or describes, in a patently offensive way, sexual conduct specifically defined by the applicable state law.[68] Third, whether the work, taken as a whole, lacks serious literary, artistic, political or scientific value.[69]

There are only two differences between the *Miller* three-part test obscenity standard and the COPA's harmful to minors standard. The first change is the additional detail in the second prong that actionable material depicts "actual or simulated sexual acts or actual or simulated normal or perverted sexual act, or a lewd exhibition of the genitals or post-pubescent female breast."[70] The second change is the addition of the phrase "to minors" in each prong of the test.[71] Although the harmful to minors standard is new as applied to the Internet, it is not a new standard on the state level. States have historically denied minors access to speech deemed harmful and have used local laws to penalize the sale of harmful materials to minors.[72]

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[64] 47 U.S.C. § 231(e)(6)(B). Emphasis added.

[65] 47 U.S.C. § 231(e)(6)(C). Emphasis added.

[66] *Miller*, 413 U.S. at 24.

[67] *See id.*

[68] *See id.*

[69] *See id.*

[70] 47 U.S.C. § 231(e)(6)(B).

[71] 47 U.S.C. § 231(e)(6)(A)-(C).

[72] See, e.g., Ala.Code § 13A-12-200.5 (1994); Ariz.Rev.Stat. Ann. § 13-3506 (1989); Ark.Code Ann. 5-68-502 (1993); Cal.Penal Code Ann. § 313.1 (West Supp.1997); Colo.Rev.Stat. § 18-7-502(1) (1986); Conn. Gen.Stat. § 53a-196 (1994); Del.Code Ann., Tit. 11, § 1365(i)(1) (1995); D.C.Code Ann. § 22-2001(b)(1)(A) (1996); Fla. Stat. § 847.012 (1994); Ga.Code Ann. § 16-12-103(a) (1996); Haw.Rev.Stat. § 712-1215(1) (1994); Idaho Code § 18- 1515(1) (1987); Ill. Comp. Stat., ch. 720, § 5/11-21 (1993); Ind.Code § 35-49-3-3(1) (Supp.1996); Iowa Code § 728.2 (1993); Kan. Stat. Ann. § 21-4301c(a)(2) (1988); La.Rev.Stat. Ann. § 14:91.11(B) (West

The last section of Title I of the COPA establishes a "Commission on Online Child Protection" for the purpose of studying methods to help reduce minors' access to harmful Internet material.[73] The commission's purpose is to identify technological or other methods that will help reduce access by minors to harmful material.[74] Any measure identified by the commission may meet the requirements for use as a defense for the COPA.[75] Furthermore, the commission's findings will be the basis for making future legislative recommendations.[76]

B. The Potential Application of the COPA

The COPA applies to all the content on Web pages with some commercial purpose. Yet, given the status of the Web's technology, there is no reliable method for content providers who provide free information to know the age of persons accessing their Web page. From the perspective of free content providers, they must make information available to all users or to none at all. Age verification through a credit card only occurs when a purchase takes place.[77] For free content providers, this means that there is no effective affirmative defense because setting up an adult identification system is economically and technologically unfeasible.[78]

1986); Md. Ann.Code, Art. 27, § 416B (1996); Mass. Gen. Laws, ch. 272, § 28 (1992); Minn.Stat. § 617.293 (1987 and Supp.1997); Miss.Code Ann. § 97-5-11 (1994); Mo.Rev.Stat. § 573.040 (1995); Mont.Code Ann. § 45-8-206 (1995); Neb.Rev.Stat. § 28-808 (1995); Nev.Rev.Stat. §§ 201.265(1), (2) (1997); N.H.Rev.Stat. Ann. § 571-B:2(I) (1986); N.M. Stat. Ann. § 30-37-2 (1989); N.Y. Penal Law § 235.21(1) (McKinney 1989); N.C. Gen.Stat. § 14-190.15(a) (1993); N.D. Cent.Code § 12.1-27.1-03 (1985 and Supp.1995); Ohio Rev.Code Ann. § 2907.31(A)(1) (Supp.1997); Okla. Stat., Tit. 21, § 1040.76(2) (Supp.1997); 18 Pa. Cons.Stat. § 5903(c) (Supp.1997); R.I. Gen. Laws § 11-31-10(a) (1996); S.C.Code Ann. § 16-15-385(A) (Supp.1996); S.D. Comp. Laws Ann. § 22-24-28 (1988); Tenn.Code Ann. § 39-17-911(a) (1991); Tex Penal Code Ann. § 43.24(b) (1994); Utah Code Ann. § 76-10-1206(2) (1995); Vt. Stat. Ann., Tit. 13, § 2802(a) (1974); Va.Code Ann. § 18.2-391 (1996); Wash. Rev.Code § 9.68.060 (1988 and Supp.1997); Wis. Stat. § 948.11(2) (Supp.1995).

[73] H.R. 3783 § 104.

[74] H.R. 3783 § 104(c)(1).

[75] *See id.*

[76] *See id.*

[77] ACLU v. Reno II, No. 98-5591, ¶ 67 (E.D. Pa. filed Oct. 22, 1998). Available online at <http://www.epic.org/free_speech/copa/complaint.html>.

[78] Plaintiff's Memorandum of Law in Support of their Motion for a Temporary Restraining Order, ACLU v. Reno, No. 98-5591 (E.D. PA. Nov. 20, 1998). Also available (visited Dec. 10, 1998) <http://www.aclu.org/court/acluvrenoII_tro.html>. The burdens of implementing an age verification system are varied. First, plaintiffs who currently make no sales on their site would have to purchase special software

The COPA only restricts content provided on the Web "for commercial purposes," but its application may ban a wide range of expression that is provided for free on the Internet. Commercial purposes may include online content providers that profit by advertising or charging their information contributors and then allow users to access the site for free. The COPA does not specifically address the commercial sale of content. Instead, it addresses the general availability of material on commercial sites. Commercial content providers who do charge an access fee to enter their sites, such as pornographic Web sites, are already explicitly exempt from the COPA because accessors verify their age through credit or debit card use.[79]

Yet, even if credit card or age verification were economically and technologically possible for free content providers, such a system would alter the nature and values of the new computer communication medium. Spontaneous and instantaneous communication characterizes the Internet. Requiring identifying information may deter users from entering sites and possibly stigmatize the speech on those sites. Furthermore, requiring a password and identity recall for entering each potentially "harmful to minors" page deters from the simplicity of Web site access and browsing.

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applications and secure servers. Second, all plaintiffs would either have to begin charging for their speech to cover the cost of verification, or they would have to cover the cost themselves. The fee per transaction would be anywher between $0.20 and $2.00. Requiring users to pay an access fee is the equivalent of requiring bookstores to charge people before they could enter the store to browse through a single book. It would have a devastating impact on plaintiffs businesses, because most users would be unwilling to pay for the information. Given the size of their audiences, which range up to the hundreds of thousands, plaintiffs could not afford to cover the cost of the verification.

[79] *Possible Solutions From An Adult Webmasters Point Of View* (visited Nov. 6, 1998) <http://www2.naughtynina.com/cda2.html>. ("Most webmasters of large, successful adult websites will tell you that the abundance "hardcore" material available on free sites hurts their business, because, why would a user pay for this material if he can get if for free. These large webmasters hold a great deal of power over smaller webmasters because, for the most part, they are their main source of income by way of click through advertising programs. Self-regulation of the online adult industry may be the best solution. It is a necessary step if the adult industry is going to continue to flourish on the Web.")

C. *Potential loopholes of the COPA*

The language of the Child Online Protection Act and the inherent qualities of the Internet provide potential loopholes to the COPA's purpose of protecting minors from harmful material. These loopholes include the omission of non-commercial sites, non-Web based methods of communication, the global nature of the Internet and the language defining the "harmful to minor" standard

.The COPA specifically addresses Web sites that post communication for commercial purposes, therefore, non-commercial sites and non-Web activities are not actionable.[80] Personal Web pages with pornographic content owned by private persons are safe because the COPA is limited to commercial distributors. Furthermore, the Web is only one type of remote information retrieval system among many. The COPA does not apply to content distributed over other aspects of the Internet such as e-mail,[81] list-servers,[82] USENET newsgroups,[83] Internet relay chat,[84] telnet functions,[85] and FTP.[86] For example, the COPA would not apply to a pornographic USENET group run by individuals because it has no commercial component. Yet, these other aspects of the Internet are just as harmful and just as accessible to minors as a Web site. Therefore, the stated purpose of preventing access to harmful material by minors is unachievable. Under the COPA, the law's limitation to commercial entities or to the World Wide Web does not achieve the goal of protecting children.

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[80] Report accompanying H.R. 3783. Submitted on October 5, 1998 by the Committee of Commerce.

[81] Bryan Pfaffenberger, QUE'S COMPUTER USER'S DICTIONARY (1992), at 121. E-Mail, short for electronic mail, refers to one-to-one communication in which one person sends a private message to another person connected to a network.

[82] *See id.* A list server is a form of automatic e-mail where one person sends a message to many people connected to a network.

[83] *See id* at 376. USENET is the distributed of news through an international wide-area network that links computers message databases

[84] Real time communications involving immediate response from parties present on the same network at the same time.

[85] *See id.* at 359. Telnet is a method of remote information retrieval through a commercial log on services

Furthermore, because of the global nature of the Internet, the COPA will not reduce the availability of sexual content on the Web from outside the United States. All of the communication on the Web is available to users worldwide and is as accessible as if it originated in the United States. Although U.S. commercial Web sites will be required to use an age verification technology, sites outside of the U.S. will not. In the geography of the Internet there is no inherent difference for a user when selecting a Web page regarding its physical server location and no method has been proposed to prevent content posted abroad from being available to Web users in the United States. Thus even if content "harmful to minors" were eradicated from the U.S. it could still be accessed from servers outside of the country.

Another possible loophole to the COPA is built into the definition of the third prong in the three-part "harmful to minors" test.[87] Subjective standards control whether a particular online material lacks serious literary, artistic, political, or scientific value for minors. For example, some may consider the Starr report detailing Kenneth Starr's findings and Monica Lewinsky's testimony harmful to minors. In debate, Representative Barney Frank (D-Mass.) raised the Starr report issue and whether its issuance via the Internet may be considered harmful to minors and a liability for Congress.[88] Representative Michael Oxley (R-Ohio) responded that the Starr report falls within the realm of protected materials because it has political value.[89] Thus, relying on the third prong in the harmful to minors test creates loopholes because some courts in liberal communities would give any material some value while conservative communities would not. The result would be that the most conservative community would prevail in selecting the minimum level of what is "harmful to minors" for the entire Internet.

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[86] *See id.* at 148. FTP is short for file transfer protocol and is a standard that governs the transmission of data and programs over the telephone system.

[87] 47 U.S.C. § 231(e)(6)(C).

[88] 144 Cong. Rec. H.9902, 9910.

The broad definition of the commercial status of the information provider, the geographic location of the provider and the varying interpretations regarding the literary, artistic, political or scientific value of any sexual material for minors are defensive loopholes to the COPA beyond the affirmative defense of a good faith attempt of an age verification process. Instead of eradicating material that is "harmful to minors," the COPA will simply impose new burdens on Web site operators and users.[90] These loopholes demonstrate that the language of the statute is broad, unclear and probably unenforceable.

D. Alternatives

Parental supervision and user-end options continue to be the primary method of ensuring that minors do not access harmful information on the Internet.[91] Internet service providers are making features available that prevent children from accessing chat rooms and that block access to Web sites and newsgroups based on keywords, subject matter, or specific newsgroups. Additional software can be purchased or downloaded that allows the user to block access to certain resources, to prevent children from giving personal information to strangers by e-mail or in chat rooms, and to keep a log of all online activity that occurs on the home computers. Again, the approach to content regulations from the user's end, rather than from the government's end continues to be the preferable method of keeping material that may be considered "harmful to minors" away from minors.

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[89] *See id.*

[90] Juliana Gruenwald, *Congress Halting Begins Writing the Book on Internet Regulation*, CQ WEEKLY, October 17, 1998, at 2817, 2817.

[91] Safety tips for kids and parents are available online (visited Dec. 10, 1998) <http://www.fbi.gov/kids/internet/internet.htm> and (visited Dec. 10, 1998) <http://www.smartparent.com>. Advice includes "Never give out identifying information such as name, home address, school name, or telephone number in a public message such as at a chat room or on bulletin boards. Never send a person a picture of you without first checking with your parent or guardian. Never respond to messages or bulletin board items that are: suggestive, obscene, belligerent, threatening, or that make you feel uncomfortable."

E. Does the COPA create a predictable ground for prosecution of Internet content?

Upon introduction of the COPA into the House of Representatives, Representative Wilbert Joseph Tauzin (R-Louisiana) supported the bill because it made it illegal to sell pornography to minors without an adult verification system.[92] To achieve this end, Tauzin says the COPA is "effective because [it] focuses on the commercial seller of pornography, and it uses a constitutional already verified protected phrase, 'harm to minors.'"[93]

The language of the COPA does not fit this goal because it states that merely making harmful material available to minors on commercial sites is prosecutable and makes actionable any speech considered obscene "for minors."[94] This language inhibits basic First Amendment freedoms because people will avoid testing the ill-defined boundaries of the law.[95] A statute must give fair warning so that a person of ordinary intelligence has a reasonable opportunity to know what is prohibited.[96] Laws must provide specific standards for those who apply them.[97] If the statute clearly addressed the sale of pornographic materials to minors then it might meet a reasonable level of fair warning. Instead, the language of the statute addresses "making material available" that is harmful to minors. Furthermore, the new standard is vague when considering that deciding what harms minors differs between individual minors and therefore obscenity has historic ties to a community standard and not an established national standard. Therefore, the COPA does not create a predictable ground for prosecution because of the statute's vague language.

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[92] 144 Cong. Rec. H.9902, 9902 (1998).

[93] *See id.*

[94] 47 U.S.C. § 231(a), (e)(6).

[95] *See* Grayned v. City of Rockford, 408 U.S. 104, 109 (1972). "Uncertain meanings inevitably lead citizens to steer far wider of the unlawful zone...than if the boundaries of the forbidden areas were clearly marked." (internal quotations omitted). Vague laws trap the innocent by not providing fair warning of what is prohibited.

[96] *See id.* at 108.

[97] *See id.*

F. Judicial Treatment of the Child Online Protection Act in ACLU v. Reno II

A day after the COPA became law, seventeen plaintiffs filed a lawsuit in the federal District Court of Pennsylvania.[98] The *Reno II* plaintiffs include: civil liberties groups, Web bookstore sites carrying books and music by and about gay and lesbian individuals, fine art and photograph vendors, informative sites on safer-sex and condoms, and an online resource center for professionals in obstetrics and gynecology.[99] The plaintiffs asserted that the material they provide for free on the Web, may meet the "commercial purpose" requirement of the statute, even though they do not directly profit from access to the Web sites.[100] Furthermore, some communities may consider the content on their Web sites harmful to minors and actionable.[101]

The *Reno II* plaintiffs asserted six reasons for fearing liability under the COPA.[102] First, that the information present on their Web-sites may violate the "harmful to minors" standard in some communities.[103] Second, they fear civil liability under the COPA because a federal prosecutor anywhere in the country could seek civil penalties by filing a complaint.[104] The federal prosecutor would have to prove, by the civil standard of a preponderance of the evidence, that a plaintiff had communicated material that the local community believes is "harmful to

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[98] Plaintiff's Complaint at ¶ 67, ACLU v. Reno II, No. 98-5591, (E.D. Pa., filed Oct. 22, 1998). Available online (visited Dec. 10, 1998) <http://www.epic.org/free_speech/copa/complaint.html>.

[99] *See id.* The 17 plaintiffs include: American Civil Liberties Union (on behalf of all its members including Nadine Strossen, Lawrence Ferlinghetti, Patricia Nell Warren and David Bunnell), A Different Light Bookstores, American Booksellers Foundation for Free Expression, Artnet Worldwide Corporation, The Blackstripe, Condomania, The Electronic Frontier Foundation (on behalf of all its members including Bill Boushka, Jon Noring, Open Enterprises Cooperative and Rufus Gricom), the Electronic Privacy Information Center, Free Speech Media LLC, Internet Content Coalition (whose members include CBS New Media, Times Inc., The New York Times Electronic Media Company, C/Net, Warner Bros. Online, MSNBC, Playboy Enterprises, Sony Online and ZDNet), Obgyn.net, Philadephia Gay News, Planetout Corporation, Powell's Bookstore, Riotgrrl, Salon Internet, Inc. and West Stock, Inc.

[100] Plaintiff's Complaint at ¶ 82. Commercial purpose, in this scenario, does not clearly restrict the plaintiffs to making money through the Web site. Other possibilities for a Web site to be considered to have a commercial purpose may include the use of advertising or selling Internet space and operating as a space provider.

[101] *See id.*

[102] *See id.* at ¶ 82-87.

[103] *See id.* at ¶ 82.

[104] *See id.* at ¶ 83.

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[101] *See id.*

[102] *See id.* at ¶ 82-87.

[103] *See id.* at ¶ 82.

[104] *See id.* at ¶ 83.

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minors."[105] Third, the plaintiffs fear they may be liable for materials created by others that is available on their Web sites.[106] Although the act contains an exemption for "providers," it also states that it applies to a person who "knowingly solicits ... materials," and therefore, the plaintiffs may not be exempt from prosecution.[107] Fourth, the plaintiffs are concerned about determining with certainty what speech the COPA prohibits.[108] To add to the confusion, the relevant "community" for what is "harmful to minors" on the global Internet is unclear and determining what comprises a work "considered as a whole" in the context of the interconnective Web is also unclear.[109] Fifth, the plaintiffs assert that the affirmative defenses provided in the COPA are technologically and economically unavailable to them.[110] Sixth, because the currently available age verification methods are technologically and economically unattainable for the plaintiffs, they have no way to take advantage of the affirmative defenses supplied by the COPA.[111] Because of these possibilities, there are two alternatives available to the plaintiffs: either risk prosecution or civil penalties under the COPA or engage in self-censorship and thereby deny adults and minors access to constitutionally protected material.[112]

The *Reno II* plaintiffs asserted that the COPA violates the First and Fifth Amendments in four ways. First, that the COPA creates an effective ban on constitutionally protected speech for adults.[113] Second, that the COPA interferes with the rights of minors to access and view material by prohibiting the dissemination of any material that is "harmful to minors" because not all

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[105] *See id.*
[106] *See id.* at ¶ 84.
[107] *See id.*
[108] *See id.* at ¶ 85.
[109] *See id.*
[110] *See id.* at ¶ 86. Specifically, the plaintiffs state that their users would not access their sites because they could no longer do so anonymously.
[111] *See id.* at ¶ 87.
[112] *See id.*
[113] Plaintiff's Complaint at ¶ 194.

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material is harmful to all minors.[114] Third, that the COPA violates the right to communicate and access information anonymously.[115] Fourth, that the COPA is unconstitutionally vague.[116] For these reasons, the plaintiffs requested that the court preliminarily and permanently enjoin the defendants from enforcing the COPA.[117]

On November 19, 1998, the District Court granted the plaintiffs' motion for a temporary restraining order.[118] Judge Lowell Reed's memorandum accompanying the temporary restraining order indicates that the plaintiffs have established a likelihood of success on the merits of their challenge.[119] Four elements are involved in obtaining a temporary restraining order.[120] First, the plaintiffs must prove the likelihood of success on the merits.[121] Second, the plaintiffs must prove that irreparable harm will result if the temporary restraining order is not issued.[122] Third, the plaintiffs must prove that less harm results to the defendant upon issuance of the temporary restraining order than if it is not issued.[123] Fourth, the plaintiffs must prove whether the public interest weighs in their favor.[124]

The court made three assumptions while examining the plaintiff's motion for a temporary restraining order. First, based on *Reno I*, the court assumed strict scrutiny should apply to determine whether the COPA is narrowly tailored to achieve a compelling government

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[114] *See id.* at * 196.

[115] *See id.* at * 197.

[116] *See id.* at * 199.

[117] Also included in the request for relief was a request to award the plaintiff's legal costs and to grant the plaintiffs any such other and further relief the Court deemed just and proper.

[118] Court's Memorandum issuing a Temporary Restraining Order, ACLU v. Reno, No. 98-5591, (E.D. Pa. Nov. 20, 1998). Also available (visited Dec. 10, 1998) <http://www.aclu.org/court/acluvrenoII_tro.html>.

[119] Court's Memorandum issuing a Temporary Restraining Order, ACLU v. Reno, No. 98-5591, (E.D. Pa. Feb. 1, 1999).

[120] *See id.* (quoting Drysdale v. Woerth, 1998 WL 64728, *1 (E.D. Pa.))(internal citation omitted).

[121] *See id.*

[122] *See id.*

[123] *See id.*

[124] *See id.*

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interest.[125] Second, based on an agreement between the parties, the court assumed that the "harmful to minors" speech described in the COPA is protected speech for adults.[126] Third, the court assumed that Congress has a legitimate compelling interest in protecting minors and that included shielding minors from materials that are not obscene by adult standards.[127]

Therefore, the remaining issue before the court was whether the COPA is narrowly tailored to achieve the compelling interest of protecting minors. Judge Lowell Reed decided that the plaintiffs had established a likelihood of success on the merits and that the COPA was not sufficiently narrowly tailored to achieve the compelling government interest. The memorandum accompanying the temporary restraining order indicates that the court found that irreparable harm would result if the COPA was enforced and that the balance of the interests, including the public interest, weighed in favor of enjoining the enforcement of the statute.[128]

For these reasons, on November 19, 1998 the District Court granted the plaintiff's motion for a temporary restraining order against the COPA until its constitutionality is ultimately resolved in court.[129] On December 7, 1998, the ACLU announced that the court had extended the temporary restraining order by mutual consent of the two parties until February 1, 1999.[130] On February 1, 1999, Judge Lowell A. Reed Jr. issued another preliminary injunction against the Child Online Protection Act.[131] This decision opens the possibility for a full trial, in the event

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[125] *See id.* (citing *Reno*, 117 S. Ct. at 2344).

[126] *See id.*

[127] *See id.* (citing Ginsberg v. New York, 390 U.S. 629, 639-640 (1968)).

[128] *See id.*

[129] *See id.*

[130] Announcement available (visited Dec. 10, 1998) <http://www.aclu.org/features/f101698a.html>.

[131] Court's Memorandum issuing a Temporary Restraining Order. ACLU v. Reno, No. 98-5591, (E.D. Pa. Feb. 1, 1999).

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that the Department of Justice decides to appeal.[132] People close to the case have said it is unclear whether the Department of Justice will appeal the ruling.[133]

IV. Discussion of Issues: Free Speech and a New Medium

Despite the wording of the First Amendments that "Congress shall make no law ... abridging the freedom of speech," historically, this guarantee of freedom of speech is contingent upon the medium of the speech. For example, the Court has traditionally prevented any regulation of the print media[134] while routinely regulating the broadcast and cable industries.[135]

The Supreme Court's differential treatment of the mass media has become established First Amendment doctrine.[136] Thus, the Supreme Court has established different rules for print,[137] broadcast radio and television,[138] cable television,[139] billboards[140] and drive-in movie theaters.[141] This medium-specific approach to mass communications examines the underlying technology of the specific communication medium to find the proper fit between First

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[132] John Simons *On 1st Amendment Concerns, U.S. Judge Again Bars Web-Porn-Law Enforcement*, WALL ST. J., FEB. 2, 1999, AT B3.

[133] *See id.*

[134] *See* Miami Herald Publishing Co. v. Tornillo, 418 U.S. 241, 241 (1974). The Supreme Court struck down a political "equal tie" legislation imposed by the Florida legislature on Florida newspapers, without ever mentioning or attempting to distinguish the cases that allow precisely such regulation in the broadcast area.

[135] *See* Red Lion Broadcasting Co. v. FCC, 395 U.S. 367, 400 (1969). The Supreme Court held that there are a finite number of useful broadcasting frequencies, and that the scarcity of this important public resource entails that the airwaves be allocated and supervised by the federal government in ways that best serve the public interest. *See e.g.* Federal Communications Commission v. Pacifica Foundation, 438 U.S. 726, 748 (1978). In this case the Court argued that broadcasting is an especially "pervasive" medium that intrudes into the privacy of the home, creating a constant risk that adults will be exposed to offensive material, and children to indecent material, without warning.

[136] *See, e.g.* Turner Broadcasting Sys., Inc. v. FCC, 114 S.Ct. 2445, 2456 (1994) ("It is true that our cases have permitted more intrusive regulation of broadcast speakers than of speakers in other media."). *See, e.g.* Pacifica, 438 U.S. at 748, ("We have long recognized that each medium of expression presents special First Amendment problems."). *See, e.g.*, City of Los Angeles v. Preferred Communications, Inc., 476 U.S. 488, 496 (1986) ("Different communications media are treated differently for First Amendment purposes.") (Blackmun, J., concurring). *See, e.g.*, Metromedia, Inc. v. City of San Diego, 453 U.S. 490, 500-01 (1981)(plurality opinion) ("This Court has often faced the problem of applying the broad principles of the First Amendment to unique forums of expression.").

[137] *See Miami Herald Publishing Co.*, 418 U.S. at 241.

[138] *See Red Lion*, 395 U.S. at 400.

[139] *See Turner*, 114 S.Ct. at 2456-57.

[140] *See Metromedia*, 453 U.S. at 501.

[141] *See* Erznoznik v. City of Jacksonville, 422 U.S. 205, 206 (1975).

Amendment values and competing interests. In print media, for example, the proper fit generally forbids even minimal regulation of content.[142]

Radio and television broadcasting are the most regulated forms of mass media. The scarcity of broadcast frequencies required the creation of a regulatory mechanism to divide the electromagnetic spectrum, parcel out the frequencies, assign specific frequencies to particular broadcasters and prohibit others from speaking on the same frequency.[143] Furthermore, the scarcity argument also allows the Government to regulate content even after it assigns a license.[144]

In contrast, the Supreme Court has held that the Government can only regulate telephone pornography by narrowly drawn regulations that do not interfere with First Amendment freedoms.[145] Under this strict scrutiny, "[i]t is not enough to show that the Government's ends are compelling; the means must be carefully tailored to achieve those ends."[146] The Court held a law regulating telephone pornography denied adults their free speech rights by forcing the content level to meet only what is acceptable for children.[147] Regardless of whether in print, in broadcasting, or on the telephone, the Supreme Court removes obscene materials from the entire framework of First Amendment protection.[148]

What is it that distinguishes the Internet, "the new medium," for regulatory purposes, from other media? First, it takes several affirmative steps to get into the Internet. At the most fundamental level, a user must have access to a computer that can reach the Internet through some sort of modem. A user must then direct the computer to connect with the access provider, enter a password, and enter the appropriate commands to find particular data. Once on the Web, to gain access to specific material, a user must know and type the address of a relevant site or find the site by typing in a relevant term into a search engine. In a search engine, for example, a descriptive blurb usually appears in the search results before the user takes the step to access information. Currently, warnings precede many sexually explicit images. In *Reno 1*, the Government's witness, Agent Howard Schmidt, Director of the Air Force Office of Special Investigation, testified that the "odds are slim" that a user would come across a sexually explicit site by accident.[149]

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[142] *See Miami Herald Publishing Co.*, 418 U.S. at 258.
[143] *See Turner*, 114 S.Ct. at 2456 (citing FCC v. League of Women Voters, 468 U.S. 364 (1984)).
[144] *See id.* at 2457.
[145] *See* Sable v. Federal Communications Commission, 492 U.S. 115, 126 (1989).
[146] *See id. See also* Fabulous Assoc. v. Pennsylvania Pub. Util. Comm., 896 F.2d 780, 784-85 (3d Cir.1990).
[147] *See Sable*, 492 U.S. at 126 (citing Butler v. Michigan, 352 U.S. 380 (1957)).
[148] *See Miller*, 413 U.S. at 24-25.

In further contrast to the broadcast media, the Internet is not a scarce resource. There is no limit to the amount of Web space to distribute and any server can be established and added to the Internet. Thus, there is no limited right of access.[150] Another way that the Web is different from broadcasting is that it is distinctively "interactive." Users of the Web are not passive receivers of information as with traditional broadcast media and users can easily respond to the material they receive or view online.[151] In *Reno 1*, the Supreme Court found the differences between the Internet and the broadcast media sufficient to place the Internet in the same category of protection as the print media.[152]

A. Comparing the COPA and the CDA

Before the Communications Decency Act, the FCC had content control over only two specific types of communications media: broadcasting[153] and telephone-based commercial service common carriers.[154] In all other communications media, the government has had no constitutional authority to impose broad regulation of non-obscene content. The COPA's "harmful to minors" standard is another attempt by Congress to impose broad regulations of non-obscene content on the Internet.

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[149] *See Reno*, 929 F. Supp. at 845.

[150] *See Reno*, 117 S. Ct. at 2343.

[151] Plaintiff's Memorandum of Law in Support of their Motion for a Temporary Restraining Order. ACLU v. Reno. No. 98-5591 (E.D. PA. Nov. 20, 1998). Also available (visited Dec. 10, 1998) <http://www.aclu.org/court/acluvrenoII_tro.html>.

[152] *See Reno*, 117 S. Ct. at 2344.

[153] Cable Television is included with television and radio in the category of broadcasting-related technologies

1. How do the COPA and the CDA differ?

The COPA and the CDA are different in at least four ways. First, the COPA is limited to commercial sites on the Web and is not supposed to apply to non-commercial speech on the Internet. The CDA, on the other hand, addressed the application of an indecency standard to the Internet as a whole and applied to speakers regardless of their commercial intent. Yet, the COPA fails to address with specificity the commercial sale of content and thereby explicitly bans a wide range of protected expression provided free on the Internet.

Second, unlike the term "any material indecent or patently offensive" standard used in the CDA, states have used the term "harmful to minors" from COPA in state statutes.[155] Material that is "harmful to minors" is arguably a narrower category of speech than that criminalized by the CDA; yet, it still refers to speech unquestionably protected for adults.

Third, rather than banning the distribution or display of pornographic material, the COPA requires sellers of such material to recast their message so that it is not available to children. The CDA completely banned the distribution of "indecent or patently offensive" materials over the

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[154] Mike Godwin and Shari Steele, *Constitutional Problems With the Communications Decency Amendment: A Legislative Analysis by the Electronic Frontier Foundation* (June 16, 1995)(visited Dec. 10, 1998) <http://www.eff.org/pub/Legislation/Bills_by_number/s652_95_a1362_passage_eff.analysis>. The justification for regulation of the telephone-based services is grounded in the government's special role in supervising common carriers. Since the telephone systems of this country are common carriers, they are under the FCC's jurisdiction. Thus, it is arguable that phone-sex services, which rely on common carriers fall under FCC jurisdiction. Yet, in *Sable* the Supreme Court found that content-based regulations of the telephone must pass strict scrutiny. *See* Sable, 492 U.S. at 126 ("Sexual expression which is indecent but not obscene is protected by the First Amendment, and the federal parties do not submit that the sale of such materials to adults could be criminalized solely because they

Internet. The secondary effect of this change is that under the COPA, it is not a crime for minors to see questionable material with parental supervision. This was a critique of the CDA because, hypothetically, parents could not choose to show their own children material deemed indecent without facing criminal penalty.

Fourth, the COPA defines "minor" as under 17. Under the CDA, the definition of "minor" was under 18.

2. How are the COPA and the CDA similar?

The COPA and the CDA are the same in at least seven ways. First, both laws are criminal statutes and may effectively silence speakers who do not want to risk communicating questionably unlawful words, issues and ideas. Second, both laws apply to material constitutionally protected for adults. Third, both laws effectively ban protected speech for adults because the available defenses does not include a method to prevent access by minors without also denying access by adults. Fourth, because both laws rely on a "community standard," they judge communication available to a nationwide audience by the standards of the community most likely offended by the message. Fifth, both laws regulate content in a mass media forum. Sixth, both laws use the language from the three-part *Miller* obscenity test to describe the materials they regulate, while the CDA used only a portion of the three part obscenity test and the COPA uses a slightly modified obscenity test to define the "harmful to minors" standard. Seventh, both laws declare that the compelling interest of the legislation is to protect children; yet, both laws have loopholes that diminish realizing that compelling interest.

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are indecent.... [T]o withstand constitutional scrutiny, 'it must do so by narrowly drawn regulations designed to serve those interests without unnecessarily interfering with First Amendment freedoms.'")(Internal citation omitted).

[155] *See supra* note 72.

B. Support For and Against the COPA

1. Arguments in support of the COPA

The COPA will pass constitutional muster if the Court construes it to apply only to obscenity available on the Internet. Such a narrow interpretation by the court would merely codify case law.[156] As a matter of policy, however, the Court may still strike down the law because of the secondary-effect of opening the door to Congressional regulation of Internet content instead of a case-by-case application of obscenity law to the Internet. Opening the door to a blanket Internet obscenity law is a lower standard of first amendment protection than a case-by-case analysis of Internet communication deemed obscene.

2. Arguments against support of the COPA

There are at least seven reasons for striking down the COPA. Those reasons include: the financial burden it places on speech, the overly broad categorical generalization of minors, the false sense of security it could give parents, the diversion of limited government resources,[157] the uselessness of the law,[158] the unconstitutionality of content based restrictions,[159] and the statute's vague language.[160]

The first problem with the COPA is that it places a financial burden on speech. The Supreme Court has stated that a statute is presumptively inconsistent with the First Amendment if it imposes financial burdens on the content of their speech.[161] A regulation imposing a financial burden on speech raises the possibility that the Government may effectively remove certain ideas or viewpoints from the marketplace of ideas.[162]

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[156] *See Thomas*, 74 F.3d at 709.

[157] 144 Cong. Rec. S12741-04, S12796 (1998). Acting Assistant Attorney General L. Anthony Sutin from the Department of Justice listed these last four problems in a letter to Representative Thomas Bliley on October 5, 1998. Also available online (visited Dec. 10, 1998) <http://www.aclu.org/court/acluvrenoII_doj_letter.html>.

[158] *See id.*

[159] *See id.*

[160] *See id.*

[161] *See Erznoznik*, 422 U.S. at 115.

Second, the "harmful to minors" standard is an overbroad categorization of age. The problem with such a broad standard is that information harmful to a teenager is different from information harmful to a young child. Subjecting the variation of maturity between minors to one nationally imposed standard of "harmful to minors" seems overbearing. On the other hand, the alternative of user-end methods of controls allow parents or guardians to define the material appropriate for age variations.

Third, parents may be misled into a false sense of security because Congress has passed a law that seeks to outlaw the commercial dissemination of pornography. Therefore, parents may not investigate user-end based regulatory methods. During the floor debate, Representative Rick White (R-Washington) related his personal experiences with his children's use of the Internet and yet considered "a law is not always the best way to solve these problems.... They sometimes breed a false sense of security." Instead of proposing a law that may cut short technology, he urged Congress to wait at least a year for the commission's report before determining any affirmative restrictions.[163]

Fourth, the COPA may divert investigative attentions and resources.[164] Innocent Images is a FBI online undercover operation that identifies and investigates individuals victimizing children through the Internet. In 1998, Innocent Images had already resulted in 196 indictments, produced 75 sources of information, secured 207 convictions and made 202 arrests.[165] The COPA may deter limited government resources from an already successful undercover operation.

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[162] *See id.*
[163] 144 Cong. Rec. H.9902, 9909 (1998).
[164] 144 Cong. Rec. at S12796.
[165] *See id.*

Fifth, the COPA is an unnecessary measure because child pornography already faces prosecution under the law.[166] Furthermore, it is impractical because commercial pornographers have already restricted access to their sites because of economic opportunities.[167] Sixth, the COPA is a content based restriction and thus, under strict scrutiny, is most likely unconstitutional.

The final problem with the COPA is that it is ambiguous in eleven separate ways. (1) The stated compelling interest is to shield minors but instead it should be to enhance parental control. (2) Global information is still accessible. (3) The statute separates "knowing" and "intentional" into two different scienters for content providers, creating two separate grounds for liability without defining the distinction between the two scienters for prosecution. (4) The mechanism for enforcing civil penalties is unclear.[168] (5) Confusion exists regarding the commercial purpose language and whether the COPA is applicable to the sale of harmful material or applicable to the availability of any Internet material. (6) The burden of proof for the affirmative defense of access restriction is unclear. (7) The definition of "materials harmful to minors" is unclear because of state-based variable obscenity laws.[169] (8) The "contemporary community standards" portion of the three-part "harmful to minors" test may be dispositive if considering the "community" of cyberspace. (9) It is unclear whether the portion relating to prurient interest of the three-part "harmful to minors" test is in regards to an individual minor or to minors as a whole. (10) The statutory language "engaged in business" is unclear. (11) The proposed make up of the commissions to study alternative affirmative defenses may violate the separation of powers. Therefore, the likely result of the ambiguous and vague language of the COPA is a chilling effect on Internet speech.

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[166] *See supra* note 7 and accompanying text.

[167] *See supra* note 9 and accompanying text.

[168] *See* 144 Cong. Rec. at S12796. The letter noted that if violation of the statute resulted only in civil penalties and not criminal penalties, the COPA would more likely pass constitutional muster. The Congress did not act upon this recommendation.

[169] *See supra* note 72.

V. Conclusion

ACLU Staff Attorney Ann Beeson said that the constitutional flaws in the Child Online Protection Act are identical to the flaws that led the Supreme Court to strike down the CDA. "Whether you call it the 'Communications Decency Act' or the 'Congress Doesn't Understand the Internet Act,' it is still unconstitutional and it still reduces the Internet to what is fit for a six-year-old," said Beeson.[170] The same problems present in the CDA are present in the COPA and the facial changes in the language of the COPA to give the appearance that it is more narrowly tailored still fail constitutional muster.

Obscene communication transferred over the Internet does not merit First Amendment constitutional protection. The COPA makes actionable any speech that is obscene "for minors." This vagueness for a content-based regulation of speech is unconstitutional. Like the CDA, the COPA will require the most stringent review for vagueness, since it is a criminal statute that "threatens to inhibit the exercise of constitutionally protected rights."[171] Therefore, there are at least three reasons why the COPA should not pass constitutional muster. First, it burdens constitutionally protected speech. Second, it is unenforceable and it fails to effectively serve the government's interest in protecting children because it does not effectively prevent the entrance of harmful materials from outside the U.S. or whether the COPA will apply to noncommercial providers. Third, it is not the least restrictive means of regulating speech when considering the availability of user-end methods.

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[170] ACLU Press Release, *ACLU v. Reno, Round 2: Broad Coalition Files Challenge to New Federal Net Censorship Law* (Nov. 17, 1998). Available online (visited Dec. 10, 1998) <http://www.aclu.org/features/f101698a.html>.

[171] Colautti v. Franklin, 439 U.S. 379, 391 (1979). *See also* Kolender v. Lawson, 461 U.S. 352, 358 n. 8; Grayned, 408 U.S. at 108-09.

The Internet is a spontaneous, instantaneous communication tool used by global communicators and it provides an affordable method of accessing a diverse body of information. Requiring an age registration to simply browse among web pages would detract from the seamlessness of the medium. Therefore, even if credit card or age verification were possible, such a requirement would alter the nature and values of the Internet by possibly deterring users from entering sites and stigmatizing the speech on those sites. Unlike the COPA, user-based solutions allow parents to prevent sexually oriented material from reaching minors from foreign sites, from non-commercial access sites and from sites requiring credit card verification. Additionally, a user-based method for controlling information received on the Internet does not face constitutional challenge.

The constitutional issue in the COPA is the same as the CDA because the COPA suppresses a large amount of speech that adults have a constitutional right to receive. While there are slight differences between the two laws, these differences are insignificant compared to their constitutional defects. Allowing the Government broad power to limit constitutionally protected material through the Child Online Protection Act is an unacceptable and unconstitutional restriction on Internet speech.

Killing physicians with fighting words:
A free-speech challenge to Internet community building

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Killing physicians with fighting words:

A free-speech challenge to Internet community building

The content of the World Wide Web site contained no specific directives to kill; yet the decision by the federal jury in Oregon underscored a belief that words suborn murder. In February, 1999, when a group of physicians won $107 million in a civil trial against a cadre of anti-abortionists, the decision focused on the content of a Web site that listed names and addresses of abortion doctors, calling them “baby butchers” and even crossing out in electronic dripping blood the name of a New York abortionist assassinated in his kitchen.[1] The jury framed the free speech issue within these parameters: that the site was tantamount to a “hit list” or a “wanted poster” that promoted violence and fell outside the protective scope of the First Amendment. The decision, now under appeal, could clarify the emerging issue of free speech in the online world and establish precedent for the emerging communications forum. The issue at the fore, however, is as old as free speech debate itself.

Can there, and should there, be limits on speech? Of course, the U.S. Supreme Court has decided there are limits. Beginning with Justice Oliver Wendell Holmes opinion in *Schenck v. United States* and continuing through the machinations of *Chaplinsky* and *Brandenburg*, the court has constructed a weigh station for gauging speech that leans heavily toward incitement and immediacy as the measures that tip the scales. In the Oregon case, *Planned Parenthood of the Columbia/Willamette, Inc.*, *vs.*

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[1] Rene Sanchez, “Doctors Win Suit over Antiabortion Web Site,” *the Washington Post*, 3 February 1999, sec. 1A, p. 1.

American Coalition of Life Activists,[2] the courts have the opportunity to define free speech in the online environment under the umbrella of Holmes' famous opinion: "The most stringent protection of free speech would not protect a man in falsely shouting fire in a theatre and causing panic. It does not even protect a man from an injunction against uttering words that may have all the effect of force."[3] Can online speech be the kerosene to that fire? The decision in Oregon indicates it can be.

The long-term impact of cases like the one in Oregon will establish a legal framework for free speech issues via the Internet, and can refine when speech turns into incitement online. The best measurement of the case's impact will come in the sway it will hold for those striving to build interactive communities online. The opportunity for creating such community is one of the foundations for this paper. That community will not be constructed with stone and wood, but through the building blocks of communication offered by the Internet where communities of common concern can gather without the restrictions of geographic boundaries. New alliances can form, and already are forming, to confront complex issues such as environmental degradation or for mundane discourse on the economic viability of Big Bird.[4] The challenge that is arising for those who help develop these computer-inspired communities – virtual communities – is the style of discourse online. The tone of online conversation can be rude and insulting, and those who support online development are seeking skills in facilitation and conflict resolution to resolve disputes that threaten the harmony of discourse.[5] To begin such facilitation requires a greater understanding of free expression in the real world and an exploration of free expression in the online world within the context of speech that by its virulence crosses the line to incitement.

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[2] *Planned Parenthood of the Columbia/Willamette, Inc. v. American Coalition of Life Activists,* 23 F. Supp. 2d., 1182 (1999).

[3] *Schenck v. United States,* 249 U.S. 47 (1919) at 52.

[4] See generally Thomas W. Benson, *"Rhetoric, Civility, and Community: Political Debate on Computer Bulletin Boards,"* Communication Quarterly 44, no. 3 (summer 1996) 359. Benson writes that computers offer a place for collaboration for large numbers of American citizens, and the international population, as they encounter one another online in an open discussion of political topics. It is a rare opportunity, he argues, for a free-for-all participation in a forum of political opinion awash in divergent political views.

The purpose of this paper is to examine free expression history and explore its application to discourse in Internet[6] chat rooms. Free speech challenges today hinge on issues of inciting harm and immediacy of reactive violence. The proverbial slap in the face cannot happen via a modem, but other retaliation can, and does, occur. Are 5,000 email messages jamming an Internet mailbox a breach of the peace?[7] Should the Oregon case extend the theory of incitement beyond the physical to the provocation of computer-inspired retaliation? Should immediacy be redefined to include speech that does not occur in face-to-face situations? Answers to these questions are necessary to gain a greater perspective of what free expression means to Internet-driven communication.

Literature Review:

This paper explores the creation of a virtual community via the Internet. The concept is that the components of the Internet, from newsgroups to chat rooms, can be used to structure centers for discussion, much like the town halls and neighborhood grocery stores of yesteryear.[8] The possibilities of such community can be used by many facets of society, from government leaders seeking to understand constituent concerns, to civic activists hoping to find solutions to societal problems such as homelessness and drugs, and to journalists seeking greater understanding of such complex issues to fulfill public journalism's promise of facilitating community action in problem solving.

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[5] See generally Brian Hoyt at www.december.com/cmc/mag/1998/jun/hoyt.html. The author argues the traditional facilitation techniques must be explored and those techniques adapted to the growing online communication medium. He believes such study is needed to help the medium develop as a forum for public discourse.

[6] A stipulation made in *ACLU v. Reno*, 929 F. Supp., 824, six components to the Internet were listed: 1. One-to-one messaging such as email; 2. One-to-many messaging such as a bulletin board or listserv, an automatic mailing list that allows users to disseminate information about a topic to a group of readers; 3. Distributed message databases such as newsgroups, similar to listservs but users do not have to subscribe to the list in advance; 4. Real-time communication such as in chat rooms; 5. Real-time computer utilization such as telnet, which allows users to connect and perform functions on remote computers; and 6. Remote retrieval such as ftp (file transfer protocol) or the World Wide Web.

[7] Jennifer Wolff, "Opening Up Online: What Happens When the Public Comes at You from Cyberspace," *Columbia Journalism Review* 33, no. 4 (November-December 1994) p: 66. Adam Bauman of *the Los Angeles Times* wrote a story about hackers storing pornographic images on computers at a nuclear research facility. In retaliation, his email address was flooded with more than 5,000 pieces of angry messages. He had to change his email address.

Why do we need online community? There is a belief that the world community has lost the tradition of public discourse and is unable to engage citizens in discussion that does not degenerate into angry shouts and absolutes.[9] We fail to focus on common interests and point accusatory fingers at the messenger instead of giving heed to the idea. Advertisers and media moguls who deliver information from the top down with little opportunity to reverse that flow of informational exchange dominate our communication agenda.[10] The "newness' of the Internet provides opportunity to reverse that flow and for community to establish its own communication agenda. Such an opportunity should not be lost, writes author John Coate, because the "free flow of information among the people is essential to the health of a democratic society."[11] The Internet's uniqueness in allowing that flow to escape geographic boundaries is what gives the medium its greatest promise within the democratic movement.

Online discussion groups encourage debate within a framework of less centralized leadership than one might find in a typical town-hall forum. Such networking gives those isolated from geographic centers of discussion more equal standing in matters of discourse.[12] Another advantage was detailed in a study headed by Barry Wellman that was published by the *Annual Review of Sociology*. The authors conclude: "This allows relationships to develop on the basis of shared interests rather than to be stunted at the onset by differences in social status."[13] Author Evan Schwartz is even more direct about the hope that the Internet will satisfy a need for community development: "For many people, the choice seems to be between a very good simulation of community and no community at all; that choice makes the virtual community look very attractive indeed."[14]

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[8] Benson at 361. He writes that the high degree of access to Internet-driven forums for discussion is an opportunity for democratic dialogue to "counter some of the ills of sound-bite politics."

[9] Evan Schwartz, "Looking for Community on the Internet," *National Civic Review* 84, no. 1 (winter 1995): 37.

[10] *Id.*

[11] John Coate, *"Cyberspace Innkeeping: Building Online Community,"* gopher.well.sf.ca.us:70/0/Community/innkeeping, (November 1993).

One "place" within the Internet where that community will grow is in chat rooms, where people connect, debate and discuss in real-time conversation similar to telephone conference calls. Chat rooms can be moderated or unmoderated,[15] and it is the moderated forum that will allow journalists and others to interact with community and to help community define and resolve issues. Of paramount concern to those building online communication models is the "style" of interactive discourse common online and how that style will either bring users in, or convince them to turn it off.[16] Today's style of discourse online troubles many, especially when rudeness is accepted as a norm. "Flaming,"[17] the practice of online insulting, is commonplace on many sites. Some online service providers are confronting the practice. Baud Town, a telnet-based text system of interfacing, is trying to build itself a community geared to online civility. Misbehavior online, from obscenity to threatening messages, can be met with banishment.[18] E-mail is scrutinized for content if the system moderators suspect inappropriate activity. There is an online Neighborhood Watch in which users report aberrant behavior to the system operators. Schwartz lends support for these styles of online policing by arguing that the Internet creates an environment for communication that is markedly different from all previous forms of communication and that it will take new strategies to keep the discourse civil.[19] Online moderators, however, should proceed cautiously before restraining the Internet's style of discourse. With the free-flowing nature of exchange that is practiced in online communication, restraining debate could stifle ideas.[20]

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[12] *Id.*

[13] Barry Wellman, Janet Salaff, Dimitrina Dimtrova, Laura Garton, Milena Guilia, and Caroline Haythornthwaite. *"Computer Networks as Social Networks: Collaborative Work, Telework, and Virtual Community,"* Annual Review of Sociology 22, no. 6 (annual 1996): p. 215.

[14] Schwartz at 39. See generally Brock N. Meeks, *"Better Democracy Through Technology."* Communications of the ACM 44, no. 2 (February 1997): p. 75. He argues that Internet communities offer the opportunity to motivate a disengaged citizenry into political activism. "At the center of this movement (is) a commitment to the rebuilding of a sense of community. And technology will play a crucial role in that movement; indeed it will be a fulcrum for this sea change in how government is practiced in the U.S."

[15] David L. Carlson, *"Electronic Communications and Communities,"* Antiquity 71, no. 274 (December 1997), p: 1049. Internet discussion groups can be subdivided into moderated and unmoderated groups. Moderated groups have editors who can either review messages before they are posted to a site and edit out those either superfluous to the conversation or those that cross rhetorical boundaries of respect with personal attacks and/or offensive or abusive language. Unmoderated discussion is a rhetorical free-for-all. Anything goes. Carlson sees benefit for both styles: the former for keeping a thread of discourse focused and within boundaries of mutual respect and the latter to allow users to venture into irrelevant topics in any style that they wish to pursue. One of the purposes of this paper is to focus on the moderated forum.

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[16] Steven G. Jones, ed. *Virtual Cultural: Identity and Communication in Cyberspace* 25, (Thousand Oaks, Calif.: Sage Publications, 1997).

[17] See generally Ed Mabry, *"Framing Flames: The Structure of Argumentative Messages on the Net."* Department of Communication, University of Wisconsin-Milwaukee, on the World Wide Web at ascus.org/jcmc/vol2/issue4/mabry.html. Flaming is considered to be personal attacks in an online forum on a fellow participant's credibility. Such attacks are heated and destructive and violate norms of network usage because they attack the person and not the idea. Benson at 372 describes this flame: "Yes, I am afraid that it has definitely been confirmed . . . . your penis size hovers around your IG at about 1 or 2." Flaming is marked by racist and sexist stereotyping and insults.

[18] Schwartz at 39. Also, Benson at 361. He writes that Internet-based discussion must embrace "civility that welcomes all parties to the debate and fosters the dignity of all participants, for an ongoing sense that all participants share a common humanity and fate, for an acceptance of the responsibility to submit arguments, broadly defined, to general consideration, and to accept victory or defeat in debate while protecting minority rights."

[19] *Id.* at 40.

[20] Carlson at 1,051. Benson at 361 argues that "entirely open access permits a level of vitriol that can drive out many participants, whereas imposition of moderated conferences can create censorship that disempowers those whose grievances may be most severe." The choice, it seems, should not be whether to moderate a discussion forum, but how much of a censor's sword to wield.

Should that organizational future of an Internet community include some guiding hand that oversees the speech that occurs there? John Coate sees the need for online hosts, or innkeepers, to keep conversation focused, to clean out the clutter from discourse and to maintain some degree of civilized order, treading the tightrope between streamlining conversation and censorship.[21] Coate's "innkeeper" must facilitate an ease of communication to minimize hostility and to encourage participation by the meek. The rules and customs that are evolving today should be formalized to allow community development that invites all to join the conversation. Who establishes those rules could determine the frankness of the discourse.

In an eight-week pilot project funded through the Fielding Institute in Santa Barbara, Calif., participants designed the group's rules, and Cyd Strickland, one of the participants, said those rules "were instrumental in quickly building relationships, collaborations, and encouraged more intense interaction."[22] Thomas Benson, writing in *Communication Quarterly,* said government-defined decorum would not work for online-group formation because the culture of the Internet rejects such interference. Rules will be better accepted if they come from users and system moderators who strive collectively for civility and a depth to discourse because of their faith in the passion of advocacy and the power of argument. [23]

Users of the Internet either will develop rules that govern online behavior or regulation could be forced upon them. The demand for regulation will grow, Donna Gallagher writes, because of the anonymous nature of the Internet, with its potential for reaching mass audiences and because of the fears of child molesters lurking in cyberspace.[24] Free speech concerns arise when information is shared that is not legally obscene. Gallagher tells the story of a 21-year-old West Hartford, Conn., man who was jailed for operating a bulletin board that provided bomb-making instructions. Although such information was available in various books and magazines, the judge in the case slapped a hefty bail on the operator of the bulletin board, saying he was a grave danger to society. Gallagher argued that because the information would not bring punishment for a print publisher, a different standard should not be held for online publishers. "If a print publisher is permitted to print and report information that is available to the public, then a computer systems operator should not be denied that same freedom."[25] Infringements upon free speech rights in cyberspace have no legal basis, argues Gallagher. "The framers of the Constitution adopted the First Amendment to facilitate and promote the free expression and exchange of ideas and information. Communication, when accessed on a home computer, should not be subjected to lesser First Amendment protection."[26]

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[21] Coate at 11.
[22] Cyd Strickland, www.december.com/cmc/mag/1998/jun/strick.html
[23] Thomas W. Benson. *Rhetoric, Civility and Community: Political Debate on Computer Bulletin Boards."* Communication Quarterly 44, no. 3 (summer 1996) at 361.

The Internet has First Amendment protection, outlined by the U.S. Supreme Court in *Reno v. ACLU.*[27] The decision, which gave guidance to regulatory efforts on speech via the Internet, came in 1997 in a challenge to the Telecommunications Act of 1996. The Court ruled two provisions of the act were unconstitutional abridgements of the First Amendment. The Court, in a decision authored by Justice John Paul Stevens, said there is no basis for qualifying the level of First Amendment protection available to the Internet.

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[24] Donna A. Gallagher, *Free Speech on the Line: Modern Technology and the First Amendment*, 3 CommLaw Conspectus 197, Catholic University (Summer 1995): p. 198.
[25] *Id.* at 202.
[26] *Id.* at 206.
[27] Reno v. ACLU, 117 S. Ct. 2329 (1997).

“The severity of criminal sanctions may well cause speakers to remain silent rather than communicate even arguably unlawful words, ideas and images,” Stevens writes.[28] Portions of the act lacked exacting precision necessary to bring restriction. “Governmental regulation of the content of speech is more likely to interfere with the free exchange of ideas than to encourage it. The interest in encouraging freedom of expression in a democratic society outweighs any theoretical but unproven benefit of censorship,” Stevens writes.”[29]

Reno v. ACLU moves the burden of censorship from the online publisher[30] to interactive users, argues Kim Rappaport, who believes emerging technology that blocks content will delegate the power of censorship to the individual and remove a need for legislation such as the failed Telecommunications Act of 1996.[31] The individual who bears the responsibility for the content – the person who either posts or edits the information online – will use blocking technology and access control methods to keep minors from viewing questionable sites. Rappaport questions what such voluntary regulation will mean to the quality of discourse in cyberspace[32] and argues that *Reno v. ACLU* establishes that any regulation of the Internet must meet rigid First Amendment analysis. “This strengthens the need for the Internet community to voice its opinion…

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[28] *Id.* at 2378.

[29] *Id.* at 2405.

[30] Zeran v. American Online. 129 F. 3d 327 (1997), established that content service providers are not legally responsible for information posted to their sites by third parties. Their responsibilities begin once they accept traditional editorial roles, such as editing copy. Whether moderating discussion groups in a real-time environment will be considered to be an editorial role remains to be seen. If messages are withheld from posting until a moderator reviews them, it seems rational to believe this encompasses an editorial role. If the moderator who is part of a group discussion operating in real-time like a telephone conversation challenges what a user writes after it is already posted to the site, then the liability issue is unclear.

[31] Kim Rappaport, *In the Wake of Reno v. ACLU: The Continuing Struggle in Western Constitutional Democracies with Internet Censorship and Freedom of Speech Online*, 13 American University International L. Rev. 765 (1998).

[32] *Id.* at 771.

(for) any future legislation or technological regime will frustrate the function and derogate the spirit, if not the purpose, of the Internet as a forum for free speech worldwide," Rappaport writes.[33]

A starting point of debate for many is whether any restraint should be imposed on the conversation of cyberspace. A rush to regulate this new medium of communication should be avoided, writes Eric Freedman.[34] Concerns and fears of the unknown about the impact of a new media should not be the prevailing viewpoint in an argument favoring regulation. Freedman explains it well: "A First Amendment that only protects speech that judges and law professors agree is socially useful in form and content, and only those communications technologies with which they feel comfortable, protects nothing that would otherwise be threatened."[35]

Kent Greenawalt, a Columbia University law professor, disagrees with Freedman's opinion. He takes a less than absolutist stance on the First Amendment and argues that words that cause harm form a narrow category of exclusion. "Utterance lies outside freedom of expression if it directly alters the social environment, 'does' something rather than tell something or recommend something," he writes.[36] The category of exclusion should focus on the speaker's aims, the way language is used, damages to the listener or some combination of these, Greenawalt argues. "Remarks whose dominant object is to hurt and humiliate, not to assert facts or values, have very limited expressive value."[37]

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[33] *Id.* at 814.
[34] Eric Freedman, *A Lot More Comes Into Focus When You Remove the Lens Cap,* 81 Iowa L. Rev. 883 (May 1996) p: 886.
[35] *Id.* at 888.
[36] Kent Greenawalt, *Fighting Words* (Princeton, N.J.: Princeton University Press, 1995) at 19.

What must be gauged in assigning protective value to speech, writes Professor Franklyn Haiman of Northwestern University, is the meaning and significance of the speech.[38] Mitigating factors in such measurement include the mental response of the listener, the relationship of the parties involved and the context in which the speech occurs. "It would then be appropriate," Haiman writes, "to invoke legal remedies against the pure speech in question."[39]

Greenawalt's belief that words which alter the social environment and Haiman's understanding that the significance of the speech determines it probative value are ideas which the Oregon decision incorporates. These same concepts – those of incitement and immediacy – have long been the measuring stick for speech and what *Planned Parenthood v. American Coalition*[40] does is expand the definition of incitement and immediacy to include within non-protected speech the blatant promotion of ideas that harm.

Discussion:

This paper reviews the history of free expression, explores its development through case law and finally examines possible applications of that law to speech in the online environment. The study begins with *Schenck v. United States,*[41] follows the trajectory of speech cases through the U.S. Supreme Court's decision in *Chaplinsky v.*

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[37] *Id.* at 53.

[38] Franklyn Haiman, "Speech Acts" and The First Amendment (Carbondale, Ill.: Southern Illinois University Press, 1993) at 17.

[39] *Id.* at 17.

[40] Planned Parenthood. 23 F. Supp. 2d 1182

[41] Schenck v. United States. 249 U.S. 47.

New Hampshire[42] to measure how the fighting-words doctrine evolved through the court system and then explores *Brandenburg v. Ohio*[43] to understand how the clear-and-present-danger test imposed parameters for gauging speech. The trail of cases remains the bellwether for speech and the fingerprints from all can provide lessons for development of a virtual community.

The U.S. Supreme Court's 1919 decision in *Schenck* drew a starting line for restrictions on speech. Justice Holmes, in affirming the conviction of a man who printed circulars opposing the draft, wrote that the "question in every case is whether the words used in such circumstances are of such nature to create a clear and present danger that they will bring about the substantial evils that Congress has a right to prevent."[44] Fifty years later, in *Brandenburg,* the court clarified when the danger is clearly present. The decision, which overturned the criminal syndicalism convictions of Ku Klux Klan leaders, said the advocacy must be "directed to inciting or producing imminent lawless action and is likely to incite or produce such action."[45] In between *Schenck* and *Brandenburg*, however, is a decision that provides the structural frame to the definition of "action."

"Fighting words" were introduced into the legal lexicon in 1942. Today, opinions vary about what remains standing from what the Court sculpted in *Chaplinsky v. New Hampshire*[46] but the essence of that decision still marks the boundaries of free expression. The key language is:

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[42] Chaplinsky v. New Hampshire, 315 U.S. 568 (1941).
[43] Brandenburg v. Ohio, 395 U.S. 444 (1969).
[44] Schenck at 52.
[45] Brandenburg at 447.
[46] *Id.*

> . . . . it is well understood that the right of free speech is not absolute at all times and under all circumstances. There are certain well-defined and narrowly limited classes of speech, the prevention and punishment of which have never been thought to raise any Constitutional problem. These include the lewd and obscene, the profane, the libelous, and the insulting or "fighting" words – those which by their very utterance inflict injury or tend to incite an immediate breach of peace. It has been well observed that such utterances are no essential part of any exposition of ideas, and are of such slight social value as a step to truth that any benefit that may be derived from them is clearly outweighed by the social interest in order and morality.[47]

The essence of the *Chaplinsky* decision is that speech is protected only if it contributes to the improvement of society and has "constitutionally cognizable value," writes Mark Rutzick in the Harvard Civil Rights-Civil Liberties Review.[48] *Chaplinsky*, he argues, left a two-pronged approach to defining whether words are offensive: first, the words themselves, and second, the effect of those words. The effect of words turns on the aim of the speaker, he argues, and the aim must be to attack or confront listeners. The decisive point that *Chaplinsky* left in judging speech is that the value must be weighed against the harms caused. That judgment, Rutzick argues, "rested on an assumption by the Court of a specific behavioral relationship between speech and reactive comments."[49]

He interprets the clause "which inflict injury or tend to incite an immediate breach of the peace" as protecting two types of harm: one physical, the other emotional. The emotional harm comes to the "sensibilities" of the hearer.[50] Because harm to one's sensibilities has no physical component, or no gauge to measure its impact unlike a slap to the face, proscribing words that injure "sensibilities" could lead to speech restrictions that surpass constitutional allowances.[51] "To close the door on the most vigorous political protest would seem to do far more harm in the long run than the likelihood in the short run of violent reactive conduct or harm to the 'sensibilities.'" Rutzick writes.[52]

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[47] *Id.* at 572.

[48] Mark Rutzick, *Offensive Language and the Evolution of First Amendment Protection*, 9 Harvard Civil Rights-Civil Liberties L. Rev. 1 (January 1974) p. 1.

[49] *Id.* at 2.

[50] *Id.* at 6.

The sensibilities issue is not the primary legacy of *Chaplinsky*. Michael Mannheimer, in a *Columbia Law Review* article, argues that the *Chaplinsky* decision left ambiguity in its wake, and the safe interpretation is that speech is protected unless it causes responsive violence by the recipient.[53] He sees speech falling into categories of content and context. If interpreted by the content of the speech, the focus would be on preventing words "which inflict injury." The context of the speech must be measured by the circumstances of that speech, the words that "tend to incite an immediate breach of the peace."[54] His argument that speech must cause immediate responsive violence is troublesome on two points. One is a misreading of a simple conjunction. *Chaplinsky* stated fighting words are those "which inflict injury *or* [emphasis added] tend to incite an immediate breach of the peace."[55] He sees the *or* as an *and*. "The fighting words doctrine, as developed from this definition, apparently serves to prevent harm that cannot be averted by any other means because it is imminent," he writes.[56] The idea that "imminent" reaction is required for words that "inflict injury" is a false one and relies upon those words provoking a breach of the peace. One does not depend upon the other, as Mannheimer states

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[51] *Id.* at 7.
[52] *Id.* at 10.
[53] Michael Mannheimer, *The Fighting Words Doctrine*, 93 Columbia L. Rev. 6 (October 1993) p. 1527.
[54] *Id.* at 1528.
[55] Chaplinsky at 572.
[56] Mannheimer at 1536.

Another problem with his interpretation comes from the New Hampshire Supreme Court decision that spawned *Chaplinsky*. That decision said fighting words are those "likely to cause an average addressee to fight" and that the statute "does no more than prohibit the face-to-face words plainly likely to cause a breach of the peace by the addressee, words whose speaking cause a breach of the peace by the speaker. . . ."[57] The "average addressee" and "face-to-face" provisions do fuel arguments in the Court's later interpretations of *Chaplinsky*, but left unnoticed is this line in the *Chaplinsky* decision: "We are unable to say that the limited scope of the statute as thus construed contravenes the Constitutional right of free expression."[58] Being "unable to say" is a wet-blanket endorsement at best, and is far from a full embrace of the "face to face" and "average addressee" provisions. "Unable to say" does not mean "we are saying."

Rutzick's viewpoint that *Chaplinsky* left open a door to debate about speech's harm to the hearer's "sensibilities" – the "inflict injury" prong – was addressed seven years after *Chaplinsky* in *Terminiello v. Chicago*.[59] The Court reversed a breach-of-peace conviction of a suspended Catholic priest who insulted Jews and African-Americans at a rally in Chicago, stirring some in the crowd to scream "dirty kikes" and "Jews, niggers and Catholics would have to be gotten rid of."[60] Such speech might arouse an emotional reaction, but can be punished only if it is "shown likely to produce a clear and present danger of a serious substantive evil that arises far above public inconvenience, annoyance, or unrest."[61] That decision introduced the "clear and present danger" test into the "fighting words" debate, which in the cases that followed focused on Holmes' statement that the question is one "of proximity and degree."[62]

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[57] Chaplinsky at 573.
[58] *Id.* at 573.
[59] Terminiello v. Chicago, 337 U.S. 1 (1948).
[60] *Id.* at 22.
[61] *Id.* at 4.

The *Terminiello* decision left unclear what that "proximity and degree" should be. The dissenters argued that the explosive atmosphere created by Terminiello's speech was more than enough degree, but the majority decision hinged more on a technicality than the content of the speech.[63] Although the decision stated that free speech "may indeed best serve its high purpose when it induces a condition of unrest, creates dissatisfaction with conditions as they are, or even stirs people to anger"[64] it must meet the clear-and-present-danger test and rise "far above public inconvenience, annoyance, or unrest."[65] An argument that this denudes the "inflict injury" aspect of *Chaplinsky* when it comes to the hearer's sensibilities ignores that "far above" is a standard, and a high one indeed. But it does not say that words that "inflict injury" have an "essential part in the exposition of ideas."[66]

In *Street v. New York,*[67] the court gave indications that it supported the "sensibilities" issue in overturning a man's conviction who said "we don't need no damn flag" and burned one on a New York street corner after hearing news of the shooting of civil rights leader James Meredith.[68] "The Court's reference to 'sensibilities' . . . marked the first explicit statement by the Court that 'sensibilities' . . . are a protectable interest and the first clarification by the Court of its statement in *Chaplinsky* that words which 'inflict injury' but threaten no violent reaction are punishable," writes Rutzick.[69] "This approach seemed to invite lower courts . . . to uphold legislative attempts to prohibit even those words which do not cause a violent reaction."[70] The decision stated that the shock effect, or that which damages the hearer's sensibilities, "must be attributed to the content of the ideas expressed."[71] The "content" frame incorporates Mannheimer's viewpoint that words that inflict injury can be proscribed,[72] and if *Street* sheds light to the form of that proscription it is narrow. As Justice John Harlan wrote, "Under our Constitution the public expression of ideas may not be prohibited merely because the ideas are themselves offensive to some of their hearers."[73] "Some of the hearers" does not mean all of the hearers, or even most of the hearers. Once again, the point comes around to the issue of degree: how many is greater than some, and can that be less than all?

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[62] Schenck at 52.
[63] Terminiello at 5. While addressed free speech issues in the decision, the Court decided the case on a technical matter dealing with how Terminiello's conviction was framed by the trial court. The verdict was a general one, and the Court ruled it could not from the record determine under what part of the ordinance his conviction was based, so it could not determine if the verdict arose from the proper clauses or not.
[64] Terminiello at 4.
[65] *Id.*
[66] Chaplinsky at 572.
[67] Street v. New York, 394 U.S. 576 (1969).
[68] *Id.* at 590.

The degree of harm arose in a 1971 decision, *Cohen v. California*,[74] where a man's conviction was overturned for wearing into a Los Angeles courthouse a jacket emblazoned with the words "Fuck the Draft." The Court again approached the issue of fighting words and left behind an expanded concept of their coverage. To receive such classification and to lose First Amendment protection, words must be delivered to an individual as a "direct personal insult"[75] and must be likely to provoke immediate response.[76] The decision rattles the argument that harm to a hearer's sensibilities is reason to sanction speech: "How is one to distinguish this from any other offensive word?" Justice Harlan wrote. "Surely the State has no right to cleanse public debate to the point where it is grammatically palatable to the most squeamish among us. Yet no readily ascertainable general principle exists for stopping short of that result. . . ."[77]

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[69] Rutzick at 14.
[70] *Id.* at 15.
[71] Street at 592.
[72] Mannheimer at 1529.
[73] Street at 575.
[74] Cohen v. California. 403 U.S. 15 (1971).
[75] *Id.* at 20.
[76] Mannheimer at 1539.

Justice Harlan offers some leeway in the majority decision that can be used to frame an argument that the "sensibilities" protection offered by *Chaplinsky* was not dead, but only gravely wounded. Government maintains the right to shut off discourse to protect the listener, but it must be with "a showing that substantial privacy interests are being invaded in an essentially intolerable manner."[78] The Court gives no guidance to what an "intolerable manner" entails, but later decisions give strong idea of what it does not. Those whose sensibilities were rattled by Cohen's expressive conduct "could effectively avoid further bombardment . . . . by averting their eyes," Harlan wrote.[79]

A final element from *Cohen* expands the protective veil for fighting words beyond the cognitive impact of the words, but to the emotive as well.[80] Cohen was using speech to bring forth emotional response, which as Harlan explains, "practically speaking may often be the more important element of the overall message sought to be communicated."[81] ". . . . [I] cannot indulge the facile assumption that one can forbid particular words without also running a substantial risk of suppressing ideas in the process," he wrote.[82] Emotive speech, it seems, serves a purpose of not only illustrating ideas but gives the listener the opportunity to understand the commitment to that idea.

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[77] Cohen at 25.
[78] Cohen at 21.
[79] *Id.* at 21.
[80] Rutzick at 18.
[81] Cohen at 26.
[82] *Id.*

The Court's 1972 decision in *Gooding v. Wilson*[83] further eroded the sensibilities argument in overturning the beach-of-the-peace conviction of a man who said, "White son of a bitch, I'll kill you" and "You son of a bitch, I'll choke you to death."[84] Both Rutzick and Mannheimer believe the decision seriously damaged the argument that words that inflict injury to the listener's sensibilities fall outside First Amendment protection.[85] The decision said that Georgia had made it a breach of the peace "merely to speak words offensive to some who hear them" [86] and was too broad. The Court's view lifts up only one aspect of *Chaplinsky*: words must have a direct tendency to cause acts of violence by the person addressed. Mannheimer believes the *Gooding* decision clarified an important aspect of *Chaplinsky,* that of whether the likelihood of violence "was to be determined in the abstract or in light of the totality of the circumstances."[87] The Georgia court failed in *Gooding* to apply the statute to "utterances where there was no likelihood that the person addressed would make an immediate violent response." [88] The Court said those words should be judged as to whether they were actually likely to result in a violent reaction in light of the circumstances.[89]

After *Gooding,* the Court remanded a case to the New Jersey court system, and all but declared the sensibilities issue dead. In *Rosenfeld v. New Jersey*[90], the Court said in light of its opinions in *Cohen* and *Gooding,* a man's conviction for using the word "motherfucker" at a school board meeting should be vacated. The decision enraged dissenters on the Court. Chief Justice Warren Burger said the Court took "steps to return to the law of the jungle."[91] Justice Lewis Powell, in arguably a eulogy to the sensibilities viewpoint, said the decision overlooked the depth of *Chaplinsky*. "[It] is not limited to words whose mere utterance entails a high probability of an outbreak of physical violence. It also extends to the willful use of scurrilous language calculated to offend the sensibilities of an unwilling audience."[92] Justice William Rehnquist echoes the sensibilities argument, writing that the decision ignored *Chaplinsky's* devaluation of speech that is lewd, obscene and profane and that the *Gooding* case clearly falls within that class.[93]

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[83] Gooding v. Wilson. 405 U.S. 518 (1972).
[84] *Id.* at 520.
[85] Rutzick at 22; Mannheimer at 1540.
[86] Gooding at 527.
[87] Mannheimer at 1540.
[88] Gooding at 528.
[89] Mannheimer at 1542.
[90] Rosenfeld v. New Jersey, 408 U.S. 901 (1972).

In 1992, in *R.A.V. v. City of St. Paul*,[94] the Court gave greater protection to fighting words. In this case, the court overturned the conviction of a man who burned a cross in a black couple's front yard. "We have not said that they constitute 'no part of the expression of ideas,' but only that they constitute 'no essential part of any exposition of ideas.'" writes Justice Anthony Scalia.[95] Government regulation may not be based on either hostility, or favoritism, toward the message expressed, the opinion continues.[96] Fighting words are excluded from protection, he reasons, because their content "embodies a particularly intolerable (and socially unnecessary) mode of expressing whatever idea the speaker wishes to convey."[97] He suggests ideas that are communicated in a threatening manner can be banned, but not ideas that are selected for what they represent.[98]

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[91] *Id.* at 902.
[92] *Id.* at 905.
[93] *Id.* at 911.
[94] R.A.V. v. City of St. Paul 505 U.S. 377.
[95] *Id.* at 385.
[96] *Id.* at 386.
[97] *Id.* at 393.

R.A.V. v. City of St. Paul gives reason to an argument against the regulation of fighting words, Mannheim writes. "If fighting words can be said to convey the message of dislike, disrespect, or hatred of the recipient, restrictions on those words favor those who support tolerance and love of their neighbors, and penalize those who harbor feelings of disgust and loathing for those around them. . . . The government is not allowed to advocate either message by favoring by law those who agree and penalizing those who do not."[99]

He advocates a two-step process for measuring fighting words. The first is that the language must be an unambiguous challenge to fight, which removes the presumption that the speech is valuable.[100] The second is that all other insulting speech must include an intent to cause violence as an element of the incitement requirement. Offensive and insulting assertions of fact and value that do not actively seek a violent response would be protected.[101] Such a standard would require study into what the author calls the objective evidence of the speech: mannerisms and gestures employed[102] to indicate a desire to start a fight. He argues it is the absence of the intent requirement for fighting words that weakens it as a legal standard[103] and states the Court should amend its fighting words doctrine to include intent to give such words greater First Amendment standing.[104]

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[98] *Id.* at 394.
[99] Mannheimer at 1563.
[100] *Id.* at 1566.
[101] *Id.* at 1568.
[102] *Id.* at 1569.
[103] *Id.* at 1571.
[104] *Id.* at 1571.

From *Schenck* through *R.A.V.*, the cases present a framework of standards for free speech that should be recognized in discussion relating to the future of online communication. A common thread is that not all speech is protected. Speech that incites, or that which cries fire in a crowded theater, can be proscribed, and the decision will turn on the immediacy of the action and not a perceived harm to a listener's sensibilities. A literal interpretation of immediacy is now challenged with the decision in *Planned Parenthood v. American Coalition.* If the decision stands, the immediacy of speech will be measured within the context of how, and whom, it incites into action, and not necessarily when that action will occur.

Conclusion:

The *Washington Post,* in an editorial after the federal jury's $107 million verdict against the anti-abortionists, said the decision could define "how to draw the line between threats and protected speech."[105] The jury instructions define the parameters of that line as the difference between a statement and a threat. A statement becomes a threat when "a reasonable person would foresee that the statement would be interpreted by those to whom the maker communicates the statement as a serious expression of intent to harm or assault."[106] A threat also should be considered "in light of their entire factual context, including the surrounding events and the reaction of the listeners."[107] In the Oregon anti-abortion case, the court appears to have measured the threat based upon the intent of the Web site to wage a continued campaign of intimidation and threat against abortionists. The impact upon the listeners is obvious. A physician was assassinated in his New York home.

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[105] Threats and Free Speech, the *Washington Post,* 5 February 1999, sec. A1, p. 32.
[106] United States v. Orozco-Santillan, 903 F.2d 1262 (1990) at 1263.

But does this rise to a level of unprotected speech? If the creators of the Web page knew their actions could incite a listener to cause harm, and in essence promoted that harm, then it seems logical to conclude that the speech would not be protected. One cannot cry "Fire!" in a theater if there is no fire and continuing to exhort behavior that leaves people dead on their kitchen floor is equal to shouting "fire." An issue must be so volatile and the interested parties so absolute in their beliefs that any fanning of the flames spreads the conflagration. Abortion is such an issue, and few others today rise to that level. The standard must be high, or infringements on free speech are sure to come. That harm from that speech must be real and must be proved, but once that harm is realized any goading directed toward those with a history of causing harm based upon the stridency of their beliefs steps beyond the protective boundary of the First Amendment.

Although the various cases do not address community building directly, they do acknowledge that being part of community may at times be unpleasant. Free speech demands a strong stomach and those hoping to engage new community via the Internet must steel themselves for the unpleasantness. There are solid reasons for why community building should occur via the Internet. Citizens feel separated from the political process. Connection with those who share interests is hamstrung by geography. The Internet offers the hope of erasing those barriers. The need to give citizens an outlet for voicing concerns, for airing grievances and for learning can be met through the virtual community. How that community will be constructed is a challenge for all who see the benefits of the cross-communication medium the Internet offers. A challenge to those involved in its development is understanding the free speech issues that arise in the

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[107] Id.

exchange. The cases from *Schenck* through *Chaplinsky* and its aftermath give some guidance.

The Internet is a jungle. Anonymous, spiteful messages, hate speech, jammed email accounts all mark this reign of incivility in the online environment. Anyone who strives to serve as a catalyst for community building by inviting computer users to a chat room to engage in debate will find little guidance from the Court. A face-to-face immediate exchange that raises ire and brings retribution cannot happen online. But it does not mean that reasoned discourse will be served in moderated chat rooms by sitting idly at a computer and letting the key punches fall where they may.

Journalists are tapping into the varied resources of the Internet to become part of this community movement. The Internet gives readers unprecedented access to reporters and editors, and gives editors and reporters the access to assessing what their audience is thinking on a host of issues.[108] Andrew Rosenthal, managing editor of *The New York Times'* Washington bureau, believes that message boards and chat rooms will be an essential tool for journalists to construct online community and fulfill the media's commitment to democracy. "When entering the electronic world, you make a commitment not just to present your product, but to establish a two-way street of communication," he says.[109] That ability to communicate with readers will heighten journalistic accountability, and give journalists the opportunity to know better the community they serve.[110]

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[108] Jennifer Wolff, "Opening Up Online: What Happens When the Public Comes at You from Cyberspace," *Columbia Journalism Review* 33, no. 4 (November-December 1994): 62.
[109] *Id.* at 65.
[110] *Id.* at 66.

The numbers tell this story. In 1998, worldwide Internet users approached 147 million people, a dramatic increase from the 36 million in 1997.[111] A June 1998 survey by CommerceNet/Nielsen Media found 79 million users of the Internet in Canada and the United States.[112] "Online communication is viewed by many as nothing short of revolutionary. It is an opportunity to communicate, learn, share, buy and sell, and perhaps most importantly to build community in virtual space," the authors believe.

As geographic communities need traffic signals and zoning laws, online communities will need rules that facilitate, and not hinder, discussion. Journalists will assume an awesome responsibility should they decide to establish rules for online discourse. Too heavy a hand will wield the censor's sword. Too light an approach and the possibility of building community based upon idea could blister in the heat of rhetorical passion. Fighting words do little to further the cause. The lesson to be learned, no matter what a court might rule in relation to the Oregon abortion case, is that free speech does not mean all speech is free. Inciting someone into an obviously wrongful action, whether it happens online or in the real world, is not free speech, but creates a clear-and-present danger of real harm. It is crying "Fire!" in Holmes' theatre.

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[111] Patricia Riley, Colleen M. Keough, Ofer Meilich, and Jillian Pierson, *"Community or Colony: The Case of Online Newspapers and the Web,"* www.ascusc.org/jcmc/vol4/issue1/keough.html.
[112] *Id.*

JAPANESE TELEVISION BROADCAST POLICY-MAKING ANALYSIS:

FROM ANALOG TO DIGITAL 1987-1997

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INTRODUCTION

Japan's broadcasting industry is facing a time of great upheaval, for it is trying to decide the extent to which it will follow the world trend toward digitization. This is an especially painful - and expensive - decision, not only because Japan has made a huge investment in the analog systems of broadcasting, but because it has spent millions, perhaps billions, of yen trying to promote a world standard for High Definition Television (HDTV), which this decision will make obsolete. What is more, the move to digital, accompanied by broadcast deregulation and the growth of satellite broadcasting, threatens to undermine long-established structures. Japan has been a frontrunner in media electronics and has hosted one of the most advanced telecommunications systems in the world. In the case of HDTV, it developed and brought to market a product that had no parallel anywhere. Yet, in the 1990s, Japan found itself far behind its nearest competitors in embracing the computer age which had taken over the world of telecommunications.

In considering the various factors influencing policy-making in Japan, it is clear that not only timing but political climate have played an important role. Over the years a delicate balance has been struck between the broadcasters, the dominant political party, and the government ministries. Sometimes it seemed that decisions that were made served the national interest, but sometimes not. One of the very clear characteristics of broadcasting research in Japan is that there are many more studies focusing on the cultural and social impact of broadcasting than there are studies focusing on broadcast policy-making and industrial economic impact.

Kanayama (1998) analyzed that there was almost no analysis of the policy-making which shaped, regulated, and guided the growth of television broadcast program services in contemporary Japan. Almost all studies fail to explore political aspects of the public policy-making approach, especially regarding the players influencing Japan's decision-making for broadcasting. In fact, Japanese broadcast policy-making literature generally has focused on descriptive explanations of how the policy was formulated and how it might affect the broadcast business.

In the atmosphere of political restructuring since the late 1980s, even Japan's stubborn black-box policy-making process has been forced to change. In this regard, this study proposes to examine what has happened to the process for making broadcast policy during this tumultuous era. This paper will examine the way Japan came to make the transition from analog to digital standards in terrestrial and satellite broadcasting from 1987 to 1997, an earth-shaking decade for Japan's broadcast industry.

RESEARCH BACKGROUND

The first television signal began beaming in February, 1953 and Nippon Television Network Corp. (NTV) followed NHK half a year later. In the late 1950s, Japanese people desired to own a black-and-white television. In addition, in 1960, NHK started color broadcasts, which stimulated viewers to buy the color television set whose standard, such as called National Television Systems Committee (NTSC), was imported from the United States.

Currently Japan has a public broadcasting station, widely know as Nippon Hoso Kyokai (NHK) and five commercial network stations, such as Tokyo Broadcasting System (TBS), Nippon Television Network Corp.(NTV), Asahi National Broadcasting Corp. (ANB), Fuji Television Corp. (CX), and Tokyo 12 Channel (TX). In total, the five commercial networks have 118 affiliated stations all over Japan. In addition, there are twelve independent stations.

For years television broadcasting has enjoyed prestigious status with unbelievably high interest rates in business due to the fact that Japan's broadcasters had been strictly regulated, meaning that there existed strong barriers of entry in the broadcasting marketplace. Accoding to the Ministry of Posts and Telecommunications of Japan (MPT Broadcasting Bureau, 1997), the market scale of Japanese broadcasting is about 3.4 trillion yen, which has been collected through either viewer fees for the public broadcaster NHK or thorough advertising income for commercial broadcasters. Considering the amount of income share, terrestrial broadcasting dominates with 92.5 percent of the total market, while satellite broadcasting holds a 2.7 percent share and cable television has 4.8 percent.

The digitization of terrestrial wave, in this sense, has been considered as a big threat because the main contingent of broadcasting allies (*Kikan Hoso Gyosha*), the terrestrial broadcasters, requires a huge amount of investment for its production equipment and antenna facilities including transmitting original broadcasting waves from the station to the television set at home including the antennae for the signal relay between the station and the television household. The Ministry of Posts and Telecommunications (MPT, 1998) estimates that terrestrial television digitization as a whole required about 1 trillion yen. The investment for digital transmission wave from analog has politicized the unchanged relationship among policy-makers (politicians), political technocrats (particularly the MPT bureaucrats), and market players (broadcasters).

The year 1987 was a symbolic time when Japan's powerful public broadcasting station Nippon Hoso Kyokai (NHK) started an aggressive satellite broadcast service of 24-hour news and entertainment programming (Saito, 1989).

Ten years later, a digitization plan developed by the Ministry of Posts and Telecommunications (MPT) was announced. Japanese broadcasters were expected to move to a digital broadcasting service in terrestrial television by the year 2000 (Kawamoto, 1997).

The decade from 1987 to 1997 represents the formulation of a new broadcast policy in Japan. Hardly anyone believed such changes were possible, either by external or internal forces, because broadcasters received privileged protection by the Broadcast Law of Japan. A single technological innovation, digitization, was the significant event which convinced the whole broadcast industry, including bureaucrats, politicians and broadcasters, to make the change. The first steps toward a policy reversal began with the implementation of satellite DBS services and the attempt to deliver HDTV to Japan's living rooms in 1987.

Research Purpose

The purpose of this study is to investigate the policy-making processes in Japan affecting television broadcasting, focusing on the central question of who were the most influential actors. Special attention will be given to the time period 1987-1997 when important decisions were made leading Japan to shift from an analog to a digital broadcasting standard.

THEORETICAL FRAMEWORK

The theoretical base for this paper is similar to that used in studies of budgetary and industrial policy analyses. Japanese journalists always mention the role of the elites, but recent press coverage of the restructuring of Japanese media suggests that the established bureaucracy is being bypassed. In the 1960s, Robert A. Scalapino and Junnosuke Masumi argued that "conservative dominance in Japan is the product of a triple alliance between bureaucracy, key national interest groups, and the Liberal Democratic Party (Scalpino and Matsui, 1962, p. 93)."

Similarly, Nathaniel Thayer concluded that the businessmen had influence over the politicians, the politicians control the bureaucracy, and the bureaucrats keep the businessmen in line, which is a natural system of checks and balances (Thayer, 1969). It seems clear that the dominant model for examining Japanese political processes has been the state-centric model (Nakane, 1970; Ishida, 1971; Yanaga, 1968).

Also, Muramatsu and Krauss (1987), Sone (1986), Sato and Matsuzaki (1986), Inoguchi (1983), Kabashima and Broadbent (1986) and Gary D. Allinson (1989) have all critiqued the state-centric approach. Muramatsu and Krauss (1987) in their counter arguments have emphasized two political factors, which are the roles of the elite and the Japanese national consensus. First, they argued that elitist scholar, Johnson (1982) neglects the role of political variables, competition and conflict (such as political party strategy, political leadership), relations among politicians, bureaucrats, and interest groups.

Thus, politics cannot completely insulate the bureaucracy from outside influence, and politics plays a role in shaping decisions. Second, focusing only on national consensus of developmental goals in postwar Japan ignores the many changes of development among Diet members in response to domestic and international pressures. Finally, Japanese policy-making has shifted under the pressures from the more influential politicians, parties, and the Diet to the stronger and more autonomous interest groups. The established political framework now wields less and less influence.

RESEARCH QUESTIONS

This research uses, as a case study, the 1997 decisions to move the country from an analog to a digital broadcast format. Relationships among political actors such as bureaucrats, Diet members [elected politicians in charge of the legislative body of Japanese government which consists of the House of Councilors and House of Representatives], broadcasters and related players in arriving at this controversial reversal of policy are examined. Assuming that Japan's broadcast policy process underwent changes in the decade between 1987 and 1997, some core questions to be asked are:

1. What roles did bureaucrats, Diet members and broadcasters play in shifting the broadcast standard to digital? Were there other significant players?

2. What changes in the domestic political environment in Japan occurred between 1987 and 1997 to support the decision to shift from an analog to a digital standard?

3. During the period 1987 through 1997 what events both within Japan and internationally contributed to creating a climate in which the decision to shift from an analog to a digital standard was accepted?

THE CONTEXT

Before answering research questions, it is important to comprehend how and why Japan reached a dead end, causing great political frustration with the digital transition from analog. In a plan approved by the Diet, NHK was allowed to collect additional viewer fees for its Direct Broadcast Satellite service. Also, the Japan Satellite Broadcasting Corporation-operated commercial channel, WOWOW, was able to charge a monthly subscription fee. Direct Broadcast Satellite service was originally proposed by the former NHK chairperson, Yoshinori Maeda, in early 1970s. And yet, in getting approval by the Diet, launching the DBS system was rationalized later to allow the public broadcaster NHK to cover entire television households. As a system, DBS signals are transmitted by satellites directly to the general public at low cost.

The Advent of DBS Service

Communication satellites not only served professional broadcasters but also television viewers in Japan. In 1989, after two years of testing from 1987 by NHK, Japan's first commercial Direct Broadcast Satellite (DBS) service started business (Nobe and Oto, 1996). The start of DBS services meant that Japan's well-established terrestrial broadcasting system, in operation since World War II, was now seriously threatened.

The DBS service, which challenged over 40 years of a conservative regulated framework of broadcasting brought on inevitable changes for Japan's broadcasters. To harmonize the needs of the traditional broadcasters and yet accommodate the new, non-NHK DBS broadcasters expected to join the DBS business commercially, the Broadcast Law was revised in 1989. The revised Broadcast Law permitted competition and the introduction of new services. Non-conventional broadcasters were invited to participate in the broadcast marketplace. But satellite services were begun based on the assumption that Japan would keep its analog transmission standard, even while industrialized countries in North America and Europe were considering conversion to digital television.

The Digital Age and Japan's HDTV Dilemma

Japan's predicament was caused by its technologically advanced High Definition Television (HDTV) system, which was developed jointly between the NHK research laboratory and consumer electronic companies, such as Sony since the 1960s. The world's leader in HDTV development, Japan was locked into an analog system which it had introduced to the world in 1981. Because of the wide bandwidth needed to transmit analog HDTV, only satellite transmission could serve this task (Takahashi, 1992). In fact, analog HDTV requires 27 MHz bandwidth, which is four times as much as the bandwidth of terrestrial television (6MHz).

Japan, including all political actors, such as politicians, bureaucrats, and broadcasters, seemed to have aspired to become a leading technological innovator by diffusing its HDTV products. At the U.S. Federal Communication Commission (FCC) in 1981, government-supported NHK aggressively promoted its HDTV standard (Ise, 1991). Positive recognition had been given in 1984 by the international broadcasters gathered at the U.S.-based National Association of Broadcasters (NAB) convention, so Japan was eager to establish its system as the standard for future television.

However, the emerging trend of integrating computer and television functions based on the digital standard ran counter to Japan's strategy which consisted of getting the world to adopt its analog format technologies. When the Grand Alliance, the consortium of U.S. companies proposing a fully digitized future television standard, introduced its Advanced TV proposal and its recommendations were accepted by the FCC, the world de facto standard changed from analog to digital based TV technologies (Halonen, 1993). The real irony is that Japan, the undisputed leader in developing a future television standard, quite quickly became the follower.

The Connection between Japan's HDTV Standard and DBS

HDTV development in Japan had been synchronized with the development of Japan's DBS system. Japan's DBS plan was a national project initiated by and developed jointly with the Ministry of Posts and Telecommunications (MPT) and the public broadcast network, Nippon Hoso Kyokai (NHK), which always led Japan's advanced broadcast technology to be diffused (Takahashi, 1992). To achieve its ambition of shaping the future of television, the MPT was thought to take full leadership and all others including NHK and commercial broadcasters, gave way to maintain harmony as DBS and HDTV systems were under development.

The Next Generation TV Standard

Time and technological developments interfered with Japan's dream of dominating the world's next television standard. Dramatic technological breakthroughs occurred in the early 1990s. In the process of seeking compatibility between television and computers and in searching for additional channel capacity, world-class providers of direct-to-home (DTH) satellite systems sought digital solutions. This speeded along development of digital cameras, television sets, transmitters and other broadcast equipment.

While the world worked to perfect digital systems, Japan hesitated to change. One of the main reasons for Japan's reluctance to go with a digital HDTV line standard and distribution system was that its industry had too much invested in analog systems. One way of explaining this reluctance to change is simply economic. But there is a more fundamental explanation based on Japan's state-centric model for technological development. DBS and HDTV development in Japan was based on rational planning by its Ministry of Posts and Telecommunications (MPT), so that all related industries were poised to move as a group in support of a unified analog-based standard (Johnson, 1982). According to this view, Japan's broadcasting industry seemed to be waiting for state leadership to deliver on its promises, or at least advise them when and how they should change directions.

Japan's Reaction to the World's Digital TV Trend

By the mid-1990s, Japanese policy-makers knew clearly that Japan would be forced to change directions. It was expected that local business interests with investments in analog products would complain. These would include the powerful Japanese Electronics Industry Development Association and the National Association of Broadcasters of Japan (NABJ).

In March 1997, the chairman of a government-sponsored research group recommended to the MPT that Japan move to a digital satellite system. The MPT already had plans to launch a high-powered satellite, needed to succeed a currently used satellite whose life time power supply was due to expire around the year 2000. The research group recommended that this new satellite have the capability to carry a digital high-definition TV broadcasting signal (BS Digital, 1997). And even before the Federal Communication Commission (FCC) announced a future digital television plan for U.S. terrestrial waves in April 1997, Japan had announced its plan for terrestrial waves to be digitized before 2000 (MPT, 1997). So, two important announcements were made in 1997 concerning digitization of TV signals. One was made in March by Japan and another in April by the United States. Britain had already revised its Broadcast Law and planned to launch its terrestrial digital delivery in early 1998.

Japan's DBS Status

Japan's satellite market is still at the fringe of television broadcasting. The greater impact of conversion to a digital system will be felt by the well-established terrestrial television broadcasters and by the electronics and manufacturing industries of Japan. Having said that, Japan's broadcast industry's switch in standard from analog to digital systems began with the attempt to deliver directly to home satellite broadcasting and spilled over into the terrestrial broadcasters.

Deregulation of the broadcast (BS) and communication (CS) satellites radically altered a long-standing terrestrially dominated broadcast marketplace. The extent to which these regulatory changes will affect the future business activities of terrestrial and satellite broadcasters is beyond the scope of this research. More important to this study is how all these regulatory/policy decisions came to be made and who were the main players leading up to a standards shift to digital.

METHODOLOGY

Specifying the Problem for Analysis

In addition to the lack of theory in understanding Japanese boradcasting, much research is still needed in Japanese broadcast policy-making. One of the weaknesses of public-policy analysis is that it often fails to explain why policies take a certain form. Profit and loss cannot be explored, for example, in the absence of effective tools for understanding timing on policy changes or how specific changes can influence the evolution of politics over time (Satori, 1970).

The policy-making process that took place in Japan in the transition from analog to digital standard is a significant case in Japanese political history. Because broadcast policy-making in the decade between 1987 and 1997 was situated within such a narrow context of political decisions, that process can be easily researched.

One of the challenges of the case study method lies in the fact that social scientists prefer to study the most representative issues and arguments. However, it is not always possible to choose in advance which issues are most important. This is especially true in politics. Policy-making is an interactive process without a clear beginning or end (Lindblom, 1993). The influence of different groups varies issue by issue over time. A case study can consider only a few selected instances, those thought to be most representative of the political environment. This project has the same potential challenges as a case study.

Because this study is a case study of a particular policy-making process affecting a large and powerful industry, interviews play a crucial part in checking the accuracy of second-hand sources and clarifying points that need to be made more precise and understandable. In addition, the researcher have to point out that revealing real intention of a certain political decision making is quite difficult to a certain players. As a result, the interview numbers for each section of political players is different.

Political Actors

Four principal categories of political actors are to be considered in analyzing broadcasting policy-making:

bureaucrats, Diet members, broadcasters, and special players, such as members of government taskforces and committees. Each political actor group has its own characteristics and sub-groups. The following describes each category.

Bureaucrats

Bureaucrats refer to government personnel working at the ministries and agencies of the Japanese government. For purposes of this research, bureaucrats are the personnel at the Ministry of Posts and Telecommunications (MPT). This research particularly focuses on the MPT's broadcast bureau, which is in charge of planning, drafting, and implementing policies concerning the broadcasting business and exercising supervision over operators of TV, radio, and CATV (Community Anttena Television).

Diet Members

The Diet is the legislative branch of the Japanese government. The Diet members working on the Committee on Communications are the core players of policy-making in broadcasting.

Broadcasters

Broadcasters are those responsible for delivering TV programs to television households in Japan. Broadcasters are targeted players in this research since they seek to influence and are influenced by decisions made by other political actors, such as bureaucrats and politicians.

There are several sub-groups of broadcasters based on the different ways TV programs may be delivered. These sub-goups are terrestrial broadcasters, DBS broadcasters utilizing broadcast satellite (BS), DBS broadcasters using communication satellite (CS) including program distributors and satellite owners.

Japan's Broadcasters

Terrestrial	• 5 commercial networks and 118 affiliate stations - analog • 12 commercial independent stations - analog • 1 public network (NHK) - analog
BS Satellite	• 1 commercial channel (WOWOW) - analog • 2 public channels (NHK) - analog
CS Satellite	• 14 commercial channels (Sky Port & Core Tech) - analog • 124 commercial channels (DirecTV and PerfecTV) - digital

Researched As of December 1997

Special Players

Task force committee members reporting to the MPT are significant because they are somewhat in an objective position, with the opportunity to talk freely about the future of telecommunications policy to the MPT. All these players are selected by MPT officials to discuss possible regulatory changes. Their special contribution is to give the MPT input from the outside.

Identifying Interviewees and Data Anaylysis

Attached appendix tables one to four list the interviewees whose perceptions and observations will be used for analysis. The tables reflect the four main political actor categories. All the interview data were transcribed, except for those interviews in which tape-recording was not allowed. The recordings and notes represent the narrative text which serves as the basis of this research. As Emery Roe pointed out in *Narrative Policy Analysis*, the researcher approaches the interview transcripts as a reflection of "reality," one element of a cluster of larger narrative text (Roe, 1994).

DISCUSSION

In the eyes of interviewees there was a political climate and specific changes which occurred in the 1987-1997 decade that made support for a new television broadcasting standard possible.

Bureaucrats

As a whole, bureaucrats raised the following three factors as the most significant of the political events leading up to the adoption of the new digital standard. These included:

1. the widespread movement toward a digital society both domestically and internationally,
2. MPT's leadership in illustrating to Japanese society the central importance of this issue, and
3. the influence of the bureaucrats in reshaping existing industrial structures and loosening regulation by the government.

Diet Members

Diet members picked two significant political events as most important in supporting the change of the broadcast standard from analog to digital. The first event was the effort by the government to loosen regulatory rules in all possible fields (*kisei kanwa*) and to relax government controls in the marketplace (Uchihashi and Group 2001).

One of the interviewees also emphasized the changing approach to broadcast regulation due to the globalization of media. As a result, *zoku giin*, Diet members specialized in a particular sectoral policy as regional representatives to the Diet, could not intervene on behalf of local interests.

Broadcasters

Interviews with all broadcasters called attention to three political events: international HDTV negotiations, the world digitization trend, and weakened labor unions. The main event which a majority of the broadcasters noted in motivating a change from the analog to digital standard was the perceived impact of a world trend toward digitization which politically stimulated Japan's response.

The other two factors were the weakening of the influence of the unions, especially inside NHK, and the failure of international negotiations to position Japanese MUSE Hi-Vision as the worldwide standard, which became so domestically and internationally politicized.

Special Players

A group of special players were in a position to follow the domestic and international events surrounding the digital policy changes with perhaps more objective eyes. They were the telecommunication and broadcast scholars at Japan's universities and media critics who served as opinion leaders in shaping public opinion. Due to their highly specialized knowledge, these persons were often involved in government task forces and committees.

The single item most noted by the group of special players was the fact that world digitization forced Japan to move in that direction. Also, collapse of the dominant Liberal Democratic Party of Japan (LDP) in 1993 had an influence on policy-making since that event changed the political balance between influential bureaucrats and Diet members.

As for the loosening of regulatory controls, the special players were well aware of the significance of these decisions in the lead up to digitization, while broadcasters rarely pointed them out due to the fact that broadcasters always looked to the MPT for guidance as a supervisor of the radio wave and a boradcast business license authority. One of those interviewed was of the opinion that international pressures over trade was what forced Japan to open its telecommunications market. Those pressures had an indirect but marked impact on broadcast policy-making.

Answering the Research Questions

After going through the data generated by the interviews, it is clear that there are both subjective and objective aspects to the transition from an analog to a digital standard between 1987 and 1997. The interviews served as a rich data source for answering the research questions posed. What follows are answers to the questions identified.

1. **What roles did bureaucrats, Diet members and broadcasters play in shifting to a digital broadcast standard? Were there other significant players?**

Bureaucrats played a significant role, whether their policy-making approach and its outcomes were good or bad. However, the strength of their position and the nature of their influence changed as their license-giving powers diminished. This is as a result of their loss of powers. In fact they assumed greater responsibilities for telecommunications as well as broadcasting for the 21st century.

Diet members were supposed to decide everything for the good of the nation. However, their lack of special knowledge as well as the collapse of the dominant LDP-led party gave bureaucrats a chance to take a more dominant role in the broadcast policy-making arena. Paricularly MPT's technocratic skills were effective when the MPT bureaucrats wanted to get particular drafts passed in the Diet. Due to the bureaucrats' technological preparedness, made more obvious by the accelerated pace of digitization, they assumed the role of technology gurus.

Where were the broadcasters? Japan's traditional broadcast policy-making has been carried out by the licensing authority and its administration by the MPT. In terms of Japan's move toward a digital broadcast standard, the MPT always had this bargaining tool and yet never released that power.

In sum, the broadcasters had always stood in a "waiting room" until someone's name was called and by doing so they could expect to get favors from the politicians and from the government bureaucrats. By 1997, both the commercial broadcasters and NHK had come to realize that the environment had changed.

Were there other significant players? Indeed, due to the impact of worldwide digitization, additional telecommunications-related players were seeking to enter the Japanese broadcast market. However, there is no evidence that international players served any significant role in shaping Japan's decision to change its broadcast standard from analog to digital.

It is clear that terrestrial broadcasters still enjoy high status as the major force in Japan's broadcast industry. Having said that, Sony's move to enter the digital communication (CS) satellite broadcasting marketplace is a potentially big threat to that dominance. For years, Sony had held off entering the field of broadcasting due to opposition from terrestrial broadcasters and regulators. As one of the consumer electronics giants of Japan, Sony has been under the supervision of the Ministry of International Trade and Industry (MITI). Finally, Sony has attained its longtime dream of being a content provider in the broadcasting market, which is regulated by the Ministry of Posts and Telecommunications (MPT).

2. **What changes in the domestic political environment in Japan occurred between 1987 and 1997 to support the decision to shift from analog to digital standards?**

The long-standing LDP-led conservative politics of Japan ended in 1993 by a vote of no-confidence in the Diet. Thereafter, the political balance of power dramatically changed. Before the LDP-dominated administration collapsed, the LDP legislators had frequently checked their territories and intervened on behalf of constituent interests. However, when the new administration took over, most of these controls ceased to operate and there was a political vacuum of bureaucratic power. This created increased opportunities for the MPT and gave it the authority it needed to shape broadcasting policy. Ironically, it seems that the MPT was the only entity in the country taking initiatives in broadcast policy-making, even though its policy-making and its consequences were not readily accepted.

3. **During the period 1987 through 1997 what events both within Japan and internationally contributed to creating a climate in which the decision to shift from analog to digital standards was accepted?**

MPT leadership in explaining and promoting a digital standards transition was considered by almost all persons interviewed to be a principal factor, but there were other events in 1995, such as when Rupert Murdoch's News Corp. came to Japan to start up the new satellite system JSkyB and approached TV Asahi, one of the network stations, about buying 21 percent of its stock. Also, Sony's alliance with JSkyB shock was a threat to the conventional broadcasters due to the fact that Sony is not only a consumer electronics company but a wealthy content provider in the broadcasting business, owning such properties as Columbia Pictures and Tristar Movies.

Internationally, the digital broadcasting strategies announced in the United States and in Great Britain piqued the interest of the Japanese society as a whole and pushed the MPT to respond on behalf of Japan as a leader among the advanced technological countries. The result was a rushed plan to fully embrace the digital format announced by the MPT with almost no consultation with their formerly close partners at the NHK or among the Diet members specializing in telecommunications.

CONCLUSION

Based on answers to these questions, it becomes clear that a state-centric approach exists. The data shows that a bureaucracy-dominant approach was significantly present and functioning. It seems that the MPT bureaucrats were the ones most aware of the changing world trend and its potential impact on Japanese society. In the conservative LDP-dominated political system, the MPT had enjoyed a privileged position in which Diet members approached them to intervene on behalf of broadcasters' interests and, by responding to those requests, the MPT gained power it could use in getting its way with the politicians.

In the age of digitization, however, and in the post-LDP era, the MPT assumed a more decisive role, and sought to expand its field of influence. Bringing digitization into the broadcasting business was a major achievement of the MPT. However, the outcome of its rapid decisions was not well-harmonized in the marketplace. Confusion was often the result of the MPT emphasizing and permitting a free market approach.

In conclusion, the researcher summarizes the results of the data, arguing that the case of the transition from an analog to a digital standard between 1987 and 1997 in Japan is something of an exception due to the fact that the MPT bureaucrats in this case assumed responsibility for making a major policy change with very little consultation with either politicians or market players. The research shows, however, that the days of the elite bureaucrat and the unchecked bureaucracy are over. This is due to technolgical advancements and societal changes.

It must be noted that this research represents a snapshot in time. The regulatory process is on-going. It is important to track the behaviors of the MPT and other players to see what develops. Given the failures of the press in keeping the general public informed during the 1987 to 1997 period, it is obvious that a pluralistic, society-centric approach is necessary in the future. Research about the roles of the media and society are possible agendas for future studies.

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APPENDICIES

Table 1: Bureaucrats Interviewed

Name	Position	Belonging
a. Akimasa Egawa	Executive Manager(retired)	MPT Broadcasting Bureau
b. Eisaku Ando	Vice Manager	Broadcast Policy Division
c. Tameyasu Tsukada	Director	Satellite Broadcast Division
d. Katsumi Osuga	Former Director	Space Communications Policy Division
e. Nobuhiro Takeuchi	Executive Planner	MPT Minister's Secretariat

Table 2: Diet Members Interviewed

Name	Position	Belonging
a. Sadao Fuchigami	Committee on Communication	House of Councilors
b. Keiji Furuya	Committee on Communication	House of Representatives

Table 3: Broadcasters Interviewed

Name	Position	Belonging
a. Masami Watanabe	Policy Coordinator	NABJ
b. Takayasu Yamasaki	Former Secretary to NHK Chairman	NHK Integrated Technology
c. Kyoko Ito	Senior Researcher	NHK Broadcast Culture Research Institute
d. Nobuaki Chikuma	President of Media Development Division	Tokyo Broadcasting System
e. Moriyoshi Saito	President	Mainichi Broadcasting System
f. Sumio Nishimura	Manager Media Planning Division	Television Yamaguchi System
g. Katsuyuki Hachimori	Corporate Communication Chief	Japan Satellite Broadcasting
h. Yasuhiro Saito	Assistant General Manager	PerfecTV
i. Katsuhiko Okazaki	Corporate Communication	JSkyB
j. Yoshio Kanbe	Executive Manager	DirecTV Japan
k. Hiroko Takikawa	Financial Markets News	Bloomberg
l. Fumio Eguchi	DBS Planning Executive	Gaora
m. Takashi Kobayashi	President	Japan Cable Television
n. Takeshi Hashimoto	Former Executive Manager	Space Communication Corporation (SCC)
o. Takeshi Hashimoto	General Manager, Telecom Network Business	Mitsubishi Corporation
p. Toshio Mikuriya	General Manager, Visual Media Department	Sumitomo Corporation
q. Yasuhiro Saito	Manager	C. Itoh & Co., Ltd.

Table 4: Special Players Interviewed

Name	Position	Belonging
a. Koichi Kobayashi	Professor	University of Tokyo
b. Shigehiko Naoe	Professor	Chuo University
c. Yoshihiro Oto	Lecturer	Sophia University
d. Miiko Kodama	Professor	Musashi University
e. Koichi Baba	Media Analyst	Experienced Journalist
f. Tomohiko Masaki	Media Analyst	Kei Communications